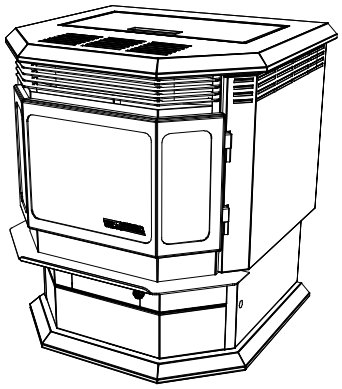
QUADRA-FIRE®

CLASSIC BAY 1200 PELLET STOVE



Owner's Manual
Installation and Operation

Model:
CB1200M-MBK

Tested and Listed by O-T-L Portland Oregon USA
C US
OMNI-Test Laboratories, Inc.

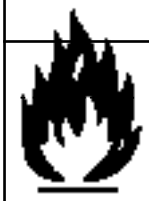
member of Pellet Fuels Institute www.pelletheat.org

NOTICE

DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.

⚠ WARNING



Please read this entire manual before installation and use of this pellet fuel-burning room heater. Failure to follow these instructions could result in property damage, bodily injury or even death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- Do not overfire - If any external part starts to glow, you are overfiring. Reduce feed rate. Overfiring will void your warranty.
- Comply with all minimum clearances to combustibles as specified. Failure to comply may cause house fire.

⚠ WARNING

HOT SURFACES!

Glass and other surfaces are hot during operation AND cool down.

Hot glass will cause burns.

- Do not touch glass until it is cooled
- NEVER allow children to touch glass
- Keep children away
- CAREFULLY SUPERVISE children in same room as fireplace.
- Alert children and adults to hazards of high temperatures.

High temperatures may ignite clothing or other flammable materials.

- Keep clothing, furniture, draperies and other flammable materials away.

CAUTION

Tested and approved for wood pellets and shelled field corn fuel only. Burning of any other type of fuel voids your warranty.

CAUTION

Check building codes prior to installation.

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult local building, fire officials or authorities having jurisdiction about restrictions, installation inspection, and permits.

Congratulations

and Welcome to the Quadra-Fire Family!

Hearth & Home Technologies welcomes you to our tradition of excellence! In choosing a Quadra-Fire appliance, you have our assurance of commitment to quality, durability, and performance.

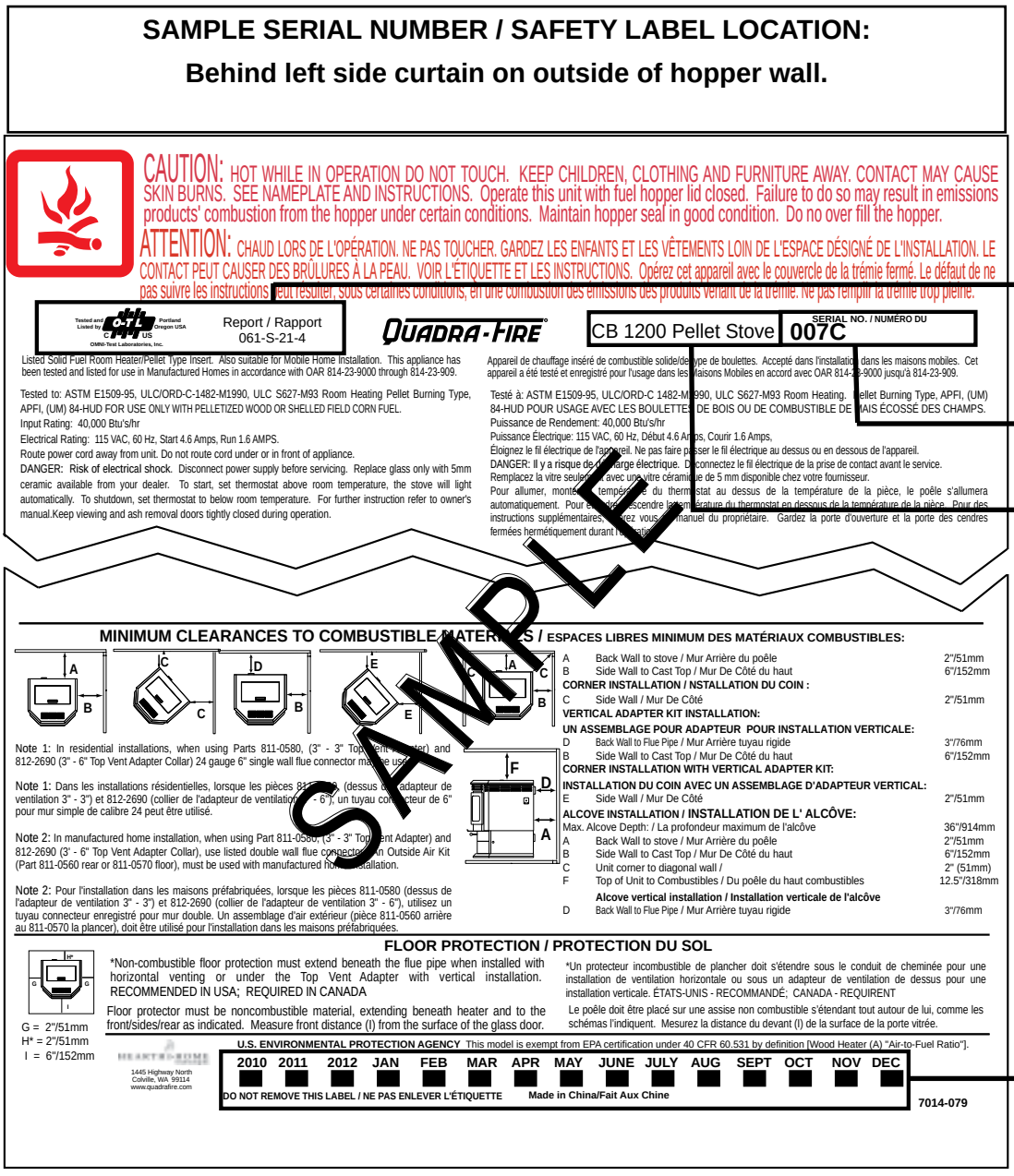
This commitment begins with our research of the market, including 'Voice of the Customer' contacts, ensuring we make products that will satisfy your needs. Our Research and Development facility then employs the world's most advanced technology to achieve the optimum operation of our stoves, inserts and fireplaces. And yet we are old-fashioned when it comes to craftsmanship. Each unit is meticulously fabricated and surfaces are hand-finished for lasting beauty and enjoyment. Our pledge to quality is completed as each model undergoes a quality control inspection from design, to fabrication, to shipping.

We wish you and your family many years of enjoyment in the warmth and comfort of your hearth appliance. Thank you for choosing Quadra-Fire.

NOTE: Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

SAMPLE SERIAL NUMBER / SAFETY LABEL LOCATION:

Behind left side curtain on outside of hopper wall.


CAUTION: HOT WHILE IN OPERATION DO NOT TOUCH. KEEP CHILDREN, CLOTHING AND FURNITURE AWAY. CONTACT MAY CAUSE SKIN BURNS. SEE NAMEPLATE AND INSTRUCTIONS. Operate this unit with fuel hopper lid closed. Failure to do so may result in emissions products' combustion from the hopper under certain conditions. Maintain hopper seal in good condition. Do no over fill the hopper.
ATTENTION: CHAUD LORS DE L'OPÉRATION. NE PAS TOUCHER. GARDEZ LES ENFANTS ET LES VÊTEMENTS LOIN DE L'ESPACE DÉSIGNÉ DE L'INSTALLATION. LE CONTACT PEUT CAUSER DES BRÛLURES À LA PEAU. VOIR L'ÉTIQUETTE ET LES INSTRUCTIONS. Opérez cet appareil avec le couvercle de la trémie fermé. Le défaut de ne pas suivre les instructions peut résulter. Sous certaines conditions, en une combustion des émissions des produits venant de la trémie. Ne pas remplir la trémie trop pleine.
Report / Rapport 061-S-21-4
QUADRA-FIRE
CB 1200 Pellet Stove
SERIAL NO. / NUMÉRO DU
007C
Listed Solid Fuel Room Heater/Pellet Type Insert. Also suitable for Mobile Home Installation. This appliance has been tested and listed for use in Manufactured Homes in accordance with OAR 814-23-9000 through 814-23-909.
Tested to: ASTM E1509-95, ULC/ORD-C-1482-M1990, ULC S627-M93 Room Heating Pellet Burning Type, APFI, (UM) 84-HUD FOR USE ONLY WITH PELLETIZED WOOD OR SHELLED FIELD CORN FUEL.
Input Rating: 40,000 Btu's/hr
Electrical Rating: 115 VAC, 60 Hz, Start 4.6 Amps, Run 1.6 AMPS.
Route power cord away from unit. Do not route cord under or in front of appliance.
DANGER: Risk of electrical shock. Disconnect power supply before servicing. Replace glass only with 5mm ceramic available from your dealer. To start, set thermostat above room temperature, the stove will light automatically. To shutdown, set thermostat to below room temperature. For further instruction refer to owner's manual.Keep viewing and ash removal doors tightly closed during operation.
Appareil de chauffage inséré de combustible solide/de type de boulettes. Accepté dans l'installation dans les maisons mobiles. Cet appareil a été testé et enregistré pour l'usage dans les Maisons Mobiles en accord avec OAR 814-23-9000 jusqu'à 814-23-909.
Testé à: ASTM E1509-95, ULC/ORD-C 1482-M1990, ULC S627-M93 Room Heating. Pellet Burning Type, APFI, (UM) 84-HUD POUR USAGE AVEC LES BOULETTES DE BOIS OU DE COMBUSTIBLE DE MAÏS ÉCOSSÉ DES CHAMPS.
Puissance de Rendement: 40,000 Btu's/hr
Puissance Électrique: 115 VAC, 60 Hz, Début 4.6 Amps, Courir 1.6 Amps,
Éloignez le fil électrique de l'appareil. Ne pas faire passer le fil électrique au dessus ou en dessous de l'appareil.
DANGER: Il y a risque de décharge électrique. Déconnectez le fil électrique de la prise de contact avant le service.
Remplacez la vitre seulement avec une vitre céramique de 5 mm disponible chez votre fournisseur.
Pour allumer, montez la température du thermostat au dessus de la température de la pièce, le poêle s'allumera automatiquement. Pour éteindre, descendre la température du thermostat en dessous de la température de la pièce. Pour des instructions supplémentaires, référez vous au manuel du propriétaire. Gardez la porte d'ouverture et la porte des cendres fermées hermétiquement durant fonctionnement.
SAMPLE
MINIMUM CLEARANCES TO COMBUSTIBLE MATERIALS / ESPACES LIBRES MINIMUM DES MATÉRIAUX COMBUSTIBLES:
A Back Wall to stove / Mur Arrière du poêle 2"/51mm
B Side Wall to Cast Top / Mur De Côté du haut 6"/152mm
CORNER INSTALLATION / NSTALLATION DU COIN :
C Side Wall / Mur De Côté 2"/51mm
VERTICAL ADAPTER KIT INSTALLATION:
UN ASSEMBLAGE POUR ADAPTEUR POUR INSTALLATION VERTICALE:
D Back Wall to Flue Pipe / Mur Arrière tuyau rigide 3"/76mm
B Side Wall to Cast Top / Mur De Côté du haut 6"/152mm
CORNER INSTALLATION WITH VERTICAL ADAPTER KIT:
INSTALLATION DU COIN AVEC UN ASSEMBLAGE D'ADAPTEUR VERTICAL:
E Side Wall / Mur De Côté 2"/51mm
ALCOVE INSTALLATION / INSTALLATION DE L' ALCÔVE:
Max. Alcove Depth: / La profondeur maximum de l'alcôve 36"/914mm
A Back Wall to stove / Mur Arrière du poêle 2"/51mm
B Side Wall to Cast Top / Mur De Côté du haut 6"/152mm
C Unit corner to diagonal wall / 2" (51mm)
F Top of Unit to Combustibles / Du poêle du haut combustibles 12.5"/318mm
Alcove vertical installation / Installation verticale de l'alcôve
D Back Wall to Flue Pipe / Mur Arrière tuyau rigide 3"/76mm
Note 1: In residential installations, when using Parts 811-0580, (3" - 3" Top Vent Adapter) and 812-2690 (3" - 6" Top Vent Adapter Collar) 24 gauge 6" single wall flue connector must be used.
Note 1: Dans les installations résidentielles, lorsque les pièces 811-0580, (dessus de l'adapteur de ventilation 3" - 3") et 812-2690 (collier de l'adapteur de ventilation 3" - 6"), un tuyau connecteur de 6" pour mur simple de calibre 24 peut être utilisé.
Note 2: In manufactured home installation, when using Part 811-0580, (3" - 3" Top Vent Adapter) and 812-2690 (3" - 6" Top Vent Adapter Collar), use listed double wall flue connector from Outside Air Kit (Part 811-0560 rear or 811-0570 floor), must be used with manufactured home installation.
Note 2: Pour l'installation dans les maisons préfabriquées, lorsque les pièces 811-0580 (dessus de l'adapteur de ventilation 3" - 3") et 812-2690 (collier de l'adapteur de ventilation 3" - 6"), utilisez un tuyau connecteur enregistré pour mur double. Un assemblage d'air extérieur (pièce 811-0560 arrière au 811-0570 la plancer), doit être utilisé pour l'installation dans les maisons préfabriquées.
FLOOR PROTECTION / PROTECTION DU SOL
*Non-combustible floor protection must extend beneath the flue pipe when installed with horizontal venting or under the Top Vent Adapter with vertical installation. RECOMMENDED IN USA; REQUIRED IN CANADA
Floor protector must be noncombustible material, extending beneath heater and to the front/sides/rear as indicated. Measure front distance (I) from the surface of the glass door.
*Un protecteur incombustible de plancher doit s'étendre sous le conduit de cheminée pour une installation de ventilation horizontale ou sous un adapteur de ventilation de dessus pour une installation verticale. ÉTATS-UNIS - RECOMMANDÉ; CANADA - REQUIRENT
Le poêle doit être placé sur une assise non combustible s'étendant tout autour de lui, comme les schémas l'indiquent. Mesurez la distance du devant (I) de la surface de la porte vitrée.
G = 2"/51mm
H* = 2"/51mm
I = 6"/152mm
HEARTH & HOME
1445 Highway North
Colville, WA 99114
www.quadrafire.com
U.S. ENVIRONMENTAL PROTECTION AGENCY This model is exempt from EPA certification under 40 CFR 60.531 by definition [Wood Heater (A) "Air-to-Fuel Ratio"].
2010 2011 2012 JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC
DO NOT REMOVE THIS LABEL / NE PAS ENLEVER L'ÉTIQUETTE
Made in China/Fait Aux Chine
7014-079
Testing Lab & Report Number
Serial Number
Model
Mfg Date

Safety Alert Key:

- ***DANGER!*** Indicates a hazardous situation which, if not avoided will result in death or serious injury.
- ***WARNING!*** Indicates a hazardous situation which, if not avoided could result in death or serious injury.
- ***CAUTION!*** Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
- ***NOTICE:*** Indicates practices which may cause damage to the fireplace or to property.

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1 Listing and Code Approvals

A. Appliance Certification

Model	CB1200 Pellet Stove
Laboratory	OMNI Test Laboratories, Inc.
Report No.	061-S-21-4
Type	Solid Fuel Room Heater/Pellet Fuel BurningType
Standard	ASTM E1509-95, ULC S627-M93 and ULC/ORD-C1482-M1990 Room Heater Pellet Fuel Burning type and (UM) 84-HUD, Mobile Home Approved.
State Listing	Colorado, Listed 09-13-05

NOTE: This installation must conform with local codes. In the absence of local codes you must comply with the **ASTM E1509-95, ULC S627-M93, ULC/ORD-C-1482-M1990, (UM) 84-HUD**

B. Mobile Home Approved

This appliance is approved for mobile home installations when not installed in a sleeping room and when an outside combustion air inlet is used.

The structural integrity of the mobile home floor, ceiling, and walls must be maintained.

The appliance must be properly grounded to the frame of the mobile home and use only Listed pellet vent Class “L” or “PL” connector pipe.

A Quadra-Fire Outside Air Kit must be installed in a mobile home installation. You must order the Outside Air Kit separately.

Note: **The appliance is also approved for installation into a shop.**

C. Glass Specifications

This appliance is equipped with 5mm ceramic glass. Replace glass only with 5mm ceramic glass. Please contact your dealer for replacement glass.

D. Electrical Rating

115 VAC, 60 Hz, Start 4.1 Amps, Run 1.1 Amps

NOTE: Some generator or battery back-up systems may not be compatable with the micro-processor electronics on this appliance. Please consult the power supply manufacturer for compatable systems.

E. BTU & Efficiency Specifications

Emissions Rating	0. 9 grams/hr
***BTU Output**	14,000 - 40,000 / hr
Heating Capacity	up to 2,500 sq. ft. depending on climate zone
Hopper Capacity	80 lbs
Fuel	Wood Pellets or Shelled Corn
Shipping Weight	349 lbs

*BTU output will vary, depending on the brand of fuel you use in your stove. Consult your Quadra-Fire dealer for best results.

WARNING! Risk of Fire! *Hearth & Home Technologies disclaims any responsibility for, and the warranty and agency listing will be voided by the above actions.*

DO NOT:

- *Install or operate damaged appliance*
- *Modify appliance*
- *Install other than as instructed by Hearth & Home Technologies*
- *Operate the appliance without fully assembling all components*
- *Overfire*
- *Install any component not approved by Hearth & Home Technologies*
- *Install parts or components not Listed or approved.*

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage.

For assistance or additional information, consult a qualified installer, service agency or your dealer.

NOTE: Hearth & Home Technologies, manufacturer of this appliance, reserves the right to alter its products, their specifications and/or price without notice.

Quadra-Fire is a registered trademark of Hearth & Home Technologies.

2 Getting Started

A. Design, Installation & Location Considerations

1. Appliance Location

NOTICE: *Check building codes prior to installation.*

- Installation MUST comply with local, regional, state and national codes and regulations.
- Consult insurance carrier, local building inspector, fire officials or authorities having jurisdiction over restrictions, installation inspection and permits.

It is a good idea to plan your installation on paper, using exact measurements for clearances and floor protection, before actually beginning the installation

Consideration must be given to:

- Safety, convenience, traffic flow
- Placement of the chimney and chimney connector.
- If you are not using an existing chimney, place the appliance where there will be a clear passage for a factory-built listed chimney through the ceiling and roof.
- Installing an optional outside air kit would affect the location of the vent termination.

Since pellet exhaust can contain ash, soot or sparks, you must consider the location of:

- Windows
- Air Intakes
- Air Conditioner
- Overhang, soffits, porch roofs, adjacent walls
- Landscaping, vegetation

When locating vent and venting termination, vent above roof line when possible.

Warning! Risk of Fire *Damaged parts could impair safe operation. Do NOT install damaged, incomplete or substitute components.*

CAUTION! *If burning shelled field corn, you must use approved venting specifically designed for corn to prevent corrosion or degradation. Follow the instructions from the venting manufacturer.*

NOTICE: *Locating the appliance in a location of considerable air movement can cause intermittent smoke spillage from appliance. Do not locate appliance near:*

- *Frequently open doors*
- *Central heat outlets or returns*

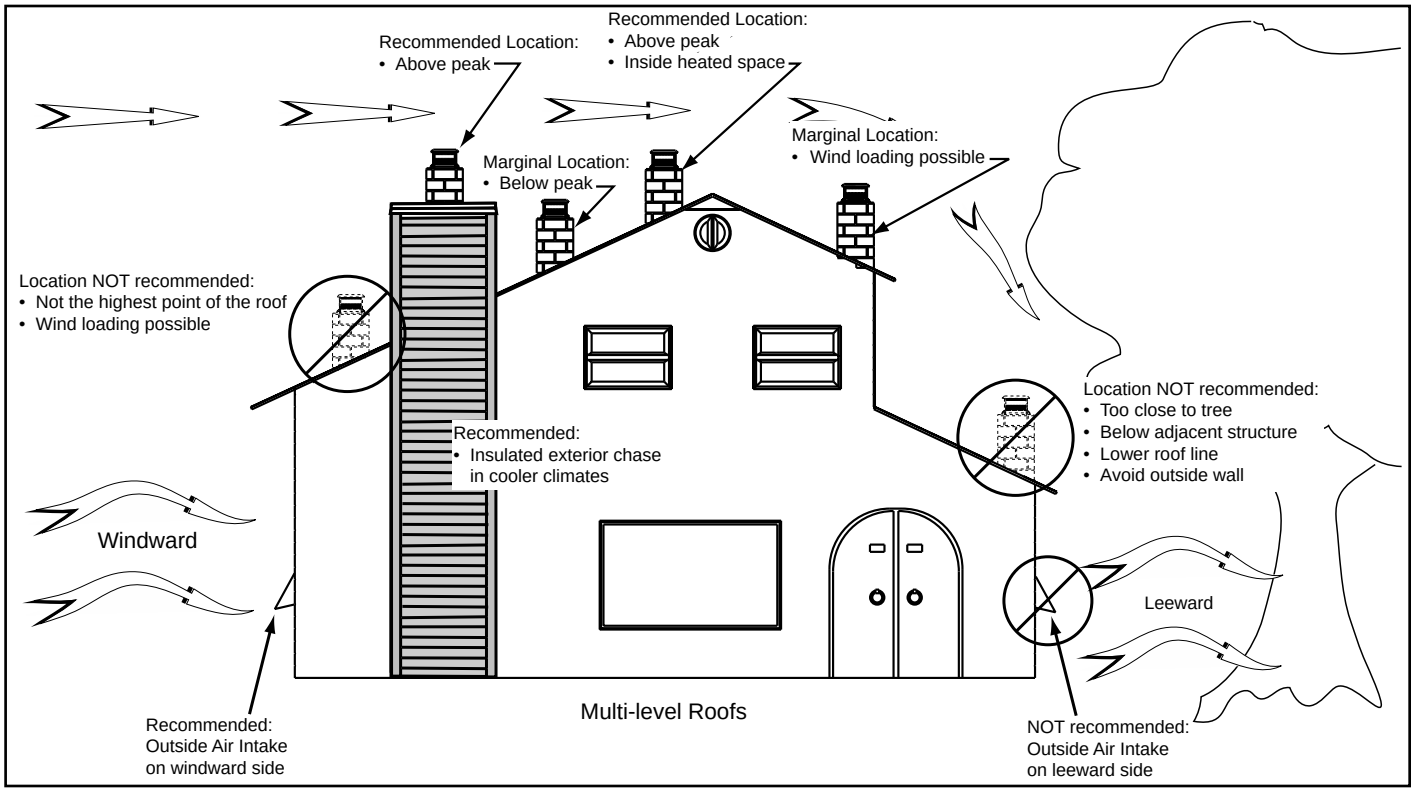


Figure 5.1

B. Locating Your Appliance & Chimney

Location of the appliance and chimney will affect performance.

- Install through the warm airspace enclosed by the building envelope. This helps to produce more draft, especially during lighting and die-down of the fire.
- Penetrate the highest part of the roof. This minimizes the effects of wind loading.
- Locate termination cap away from trees, adjacent structures, uneven roof lines and other obstructions.
- Minimize the use of chimney offsets.
- Consider the appliance location relative to floor and ceiling and attic joists.
- Take into consideration the termination requirements on **Page 11.**

⚠ CAUTION

- DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVICING ANOTHER APPLIANCE.
- DO NOT CONNECT TO ANY AIR DISTRIBUTON DUCT OR SYSTEM.
- May allow flue gases to enter the house.

C. Thermostat Location

The thermostat's location will have some effect on the appliance's operation. When the thermostat is located close to the appliance, it may require a slightly higher temperature setting to keep the rest of the house comfortable. If the thermostat location is in an adjacent room or on a different floor level, you will notice higher temperatures near the appliance.

D. Draft

Draft is the pressure difference needed to vent appliances successfully. When an appliance is drafting successfully, all combustion byproducts are exiting the home through the chimney.

Considerations for successful draft include:

- Preventing negative pressure
- Location of appliance and chimney

NOTICE: *Hearth & Home Technologies assumes no responsibility for the improper performance of the chimney system caused by:*

- *Inadequate draft due to environmental conditions*
- *Downdrafts*
- *Tight sealing construction of the structure*
- *Mechanical exhausting devices*

E. Negative Pressure

WARNING! Risk of Asphyxiation! *Negative pressure can cause spillage of combustion fumes and soot.*

Negative pressure results from the imbalance of air available for the appliance to operate properly. It can be strongest in lower levels of the house.

Causes include:

- Exhaust fans (kitchen, bath, etc.)
- Range hoods
- Combustion air requirements for furnaces, water heaters and other combustion appliances
- Clothes dryers
- Location of return-air vents to furnace or air conditioning
- Imbalances of the HVAC air handling system
- Upper level air leaks such as:
  - Recessed lighting
  - Attic hatch
  - Duct leaks

To minimize the effects of negative air pressure:

- Install the outside air kit with the intake facing prevailing winds during the heating season
- Ensure adequate outdoor air for <u>all</u> combustion appliances and exhaust equipment
- Ensure furnace and air conditioning return vents are not located in the immediate vicinity of the appliance
- Avoid installing the appliance near doors, walkways or small isolated spaces
- Recessed lighting should be a "sealed can" design
- Attic hatches weather stripped or sealed
- Attic mounted duct work and air handler joints and seams taped or sealed

⚠ WARNING

Fire Hazard.

- Do not operate appliance before reading and understanding operating instructions.
- Failure to operate appliance properly may cause a house fire.

F. Fire Safety

To provide reasonable fire safety, the following should be given serious consideration:

- Install at least one smoke detector on each floor of your home.
- Locate smoke detector away from the heating appliance and close to the sleeping areas.
- Follow the smoke detector manufacturer's placement and installation instructions and maintain regularly.
- Conveniently locate a Class A fire extinguisher to contend with small fires.
- In the event of a hopper fire:
  - Evacute the house immediately.
  - Notify fire department.

⚠ WARNING

Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged components.
- Do NOT install incomplete components.
- Do NOT install substitute components.

Report damaged parts to dealer.

⚠ WARNING

Fire Risk.

Hearth & Home Technologies disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged appliance.
- Modification of the appliance.
- Installation other than as instructed by Hearth & Home Technologies.
- Installation and/or use of any component part not approved by Hearth & Home Technologies.
- Operating appliance without fully assembling all components.
- Operating appliance without legs attached (if supplied with unit).
- Do NOT Overfire

Or any such action that may cause a fire hazard.

G. Tools And Supplies Needed

Tools and building supplies normally required for installation, unless installing into an existing masonry fireplace:

Reciprocating Saw
Channel Locks
Hammer
Phillips Screwdriver
Tape Meausre
Plumb Line
Level
Framing Material
Hi-temp Caulking Material
Gloves
Safety Glasses
Framing Square
Electric Drill & Bits (1/4")
1/4" Self-Tapping Screws

<u>May also need:</u>
Vent Support Straps
Venting Paint

H. Inspect Appliance & Components and Pre-Use Check List

1.		Place the appliance in a location near the final installation area and follow the procedures below:
2.		Open the appliance and remove all the parts and articles packed inside the Component Pack. Inspect all the parts and glass for shipping damage. Contact your dealer if any irregularities are noticed.
3.		All safety warnings have been read and followed.
4.		This Owner's Manual has been read.
5.		Floor protection requirements have been met.
6.		Venting is properly installed.
7.		The proper clearances from the appliance and chimney to combustible materials have been met.
8.		The masonry chimney is inspected by a professional and is clean, or the factory built metal chimney is installed according to the manufacturer's instructions and clearances.
9.		The chimney meets the required minimum height.
10.		All labels have been removed from the glass door.
11.		Plated surfaces have been wiped clean, if applicable.
12.		Thermostat or remote has been installed.
13.		A power outlet is available nearby.

3 Dimensions and Clearances

A. Appliance Dimensions

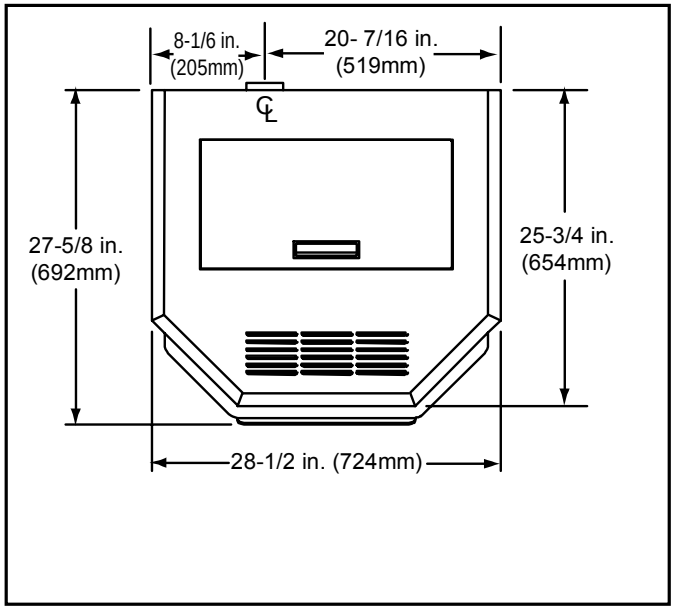


Figure 8.1 - Top View

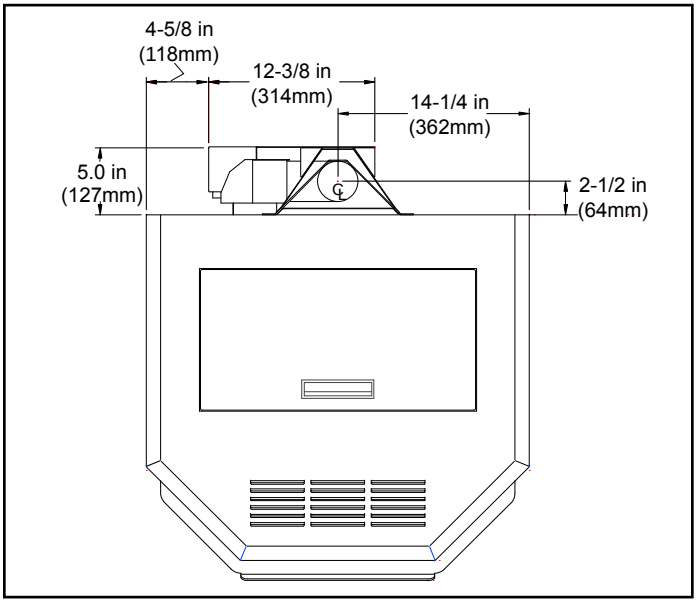


Figure 8.2 - Top View with Top Vent Adapter

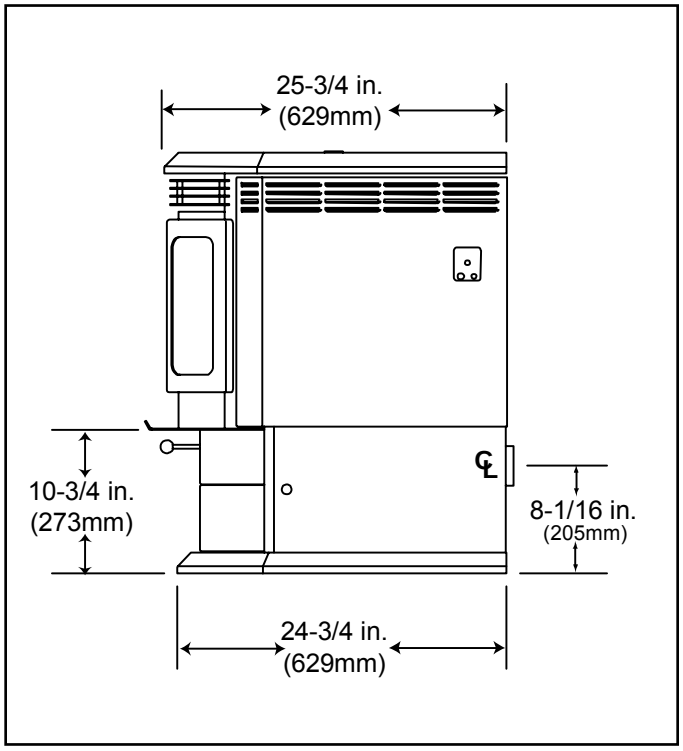


Figure 8.3 - Side View

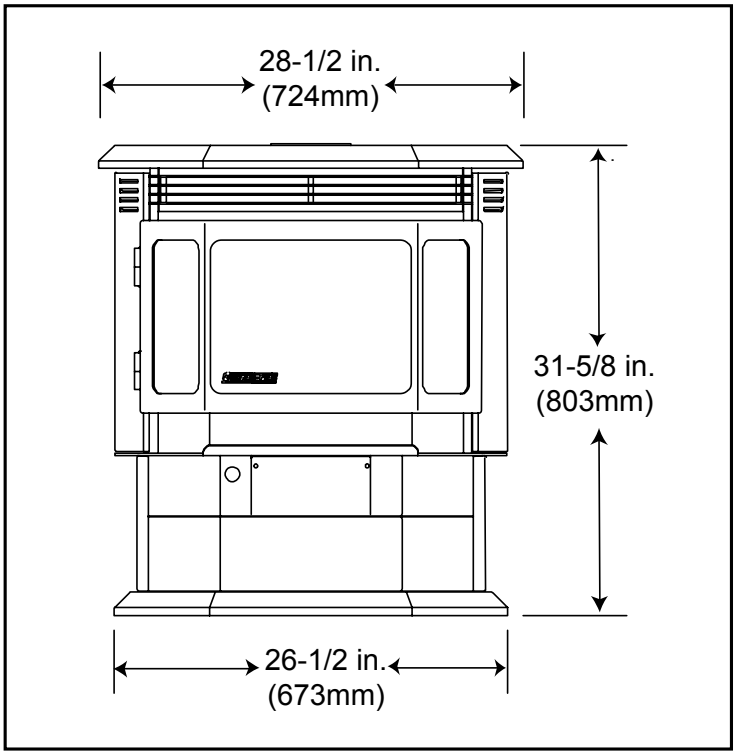
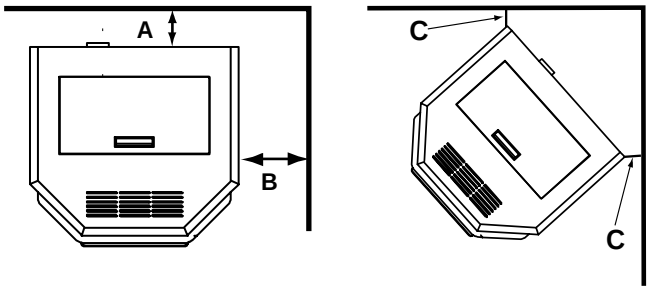


Figure 8.4 - Front View

B. Clearances to Combustibles (UL and ULC)



Straight Back Against Wall		Inches	Millimeters
A	Back Wall to Appliance	2	51
B	Side Wall to Appliance	6	152

Corner Installation		Inches	Millimeters
C	Walls to Appliance	2	51

Alcove Installation	Inches	Millimeters
Minimum Alcove Height	44	1117
Minimum Alcove Width	40-1/2	1029
Maximum Alcove Depth	36	915
Minimum Alcove Side Wall	6	152
Top of Unit to Combustibles	12-1/2	318

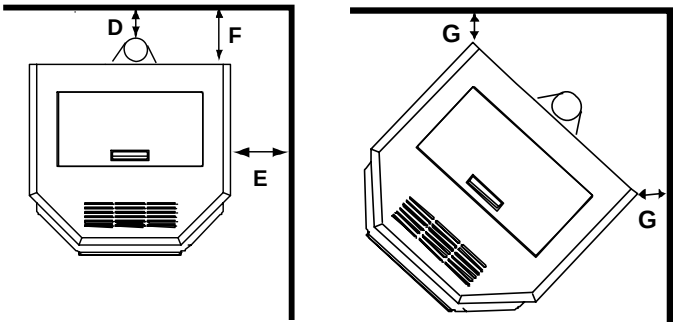
WARNING

Fire Risk.
Comply with all minimum clearances to combustibles as specified.

Failure to comply may cause house fire.

NOTE:
- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

Installations with:
3 to 3 inch Top Vent Adapter and
3 to 6 inch Offset Adapter Kit



Vertical Installation		Inches	Millimeters
D	Back Wall to Flue Pipe	3	76
E	Side Wall to Top	6	152
F	Back Wall to Appliance	7.5	191

Corner Installation		Inches	Millimeters
G	Walls to Appliance	2	51

C. Hearth Pad Requirements (UL and ULC)

Use a non-combustible floor protector, extending beneath appliance and to the front, sides and rear as indicated. Measure front distance “M” from the surface of the glass door.

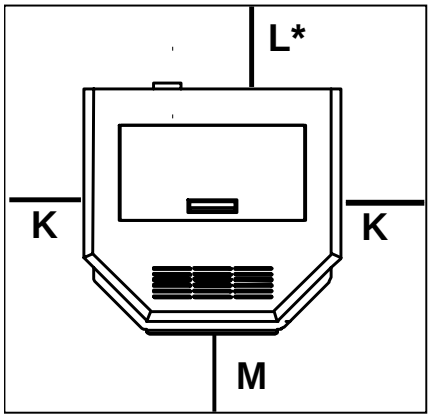


Figure 10.1

Hearth Pad Requirements		Inches	Millimeters
K	Sides	2	51
L*	Back	2	51
M	Front	6	152

***L Exception for Horizontal Installations:**

USA INSTALLATIONS: A non-combustible floor protection is recommended extending beneath the flue pipe when installed with horizontal venting or under the top vent adapter with vertical installation.

CANADA INSTALLATIONS: A non-combustible floor protection extending beneath the flue pipe is **required** with horizontal venting or under the top vent adapter with vertical installation.

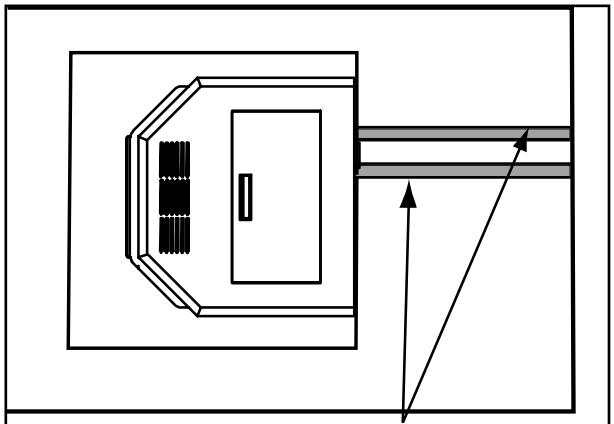


Figure 10.2

4 Vent Information

A. Chimney and Exhaust Connection

1. **Chimney & Connector**: Use 3 or 4 inch (76-102mm) diameter type "L" or "PL" venting system. It can be vented vertically or horizontally.
2. **Mobile Home:** Approved for all Listed pellet vent. If using the 3 inch (76mm) vertical top vent adapter kit or the 3 to 6 inch (76-152mm) top vent offset adapter, use Listed double wall flue connector. A Quadra-Fire outside air kit must be used with manufactured home installations.
3. **Residential:** The 3 inch (76mm) vertical top vent adapter kit and the 3 to 6 inch (76-152mm) top vent offset adapter are tested to use 24 gauge single wall flue connector or Listed double wall flue connector to Class A Listed metal chimneys, or masonry chimneys meeting national and/or local codes for solid fuel appliances.
4. **INSTALL VENT AT CLEARANCES SPECIFIED BY THE VENT MANUFACTURER.**
5. Secure exhaust venting system to the appliance with at least 3 screws. Also secure all connector pipe joints with at least 3 screws through each joint.
6. DO NOT INSTALL A FLUE DAMPER IN THE EXHAUST VENTING SYSTEM OF THIS UNIT.
7. DO NOT CONNECT THIS UNIT TO A CHIMNEY FLUE SERVING ANOTHER APPLIANCE.

NOTE: All pipe must be welded seam pipe whenever possible. Seal pipe joints with high temperature silicone (500°F [260°C] minimum rated only). Do not put silicone inside of pipe.

NOTE: If burning shelled field corn, you must use approved venting specifically designed for corn. Follow the instructions from the venting manufacturer.

⚠ WARNING

Fire Hazard.

- Only LISTED venting components may be used.
- NO OTHER vent components may be used. Substitute or damaged vent components may impair safe operation.

⚠ WARNING

Vent surfaces get HOT, can cause burns if touched. Noncombustible shielding or guards may be required.

B. Venting Termination Requirements

CAUTION

Do not terminate vent in any enclosed or semi-enclosed area such as a carport, garage, attic, crawl space, under a sun deck or porch, narrow walkway or closely fenced area, or any location that can build up a concentration of fumes such as a stairwell, covered breezeway, etc.

1. Termination must exhaust above air inlet elevation. It is recommended that at least 60 inches (1524mm) of vertical pipe be installed when appliance is vented directly through a wall. This will create a natural draft, which will help prevent the possibility of smoke or odor venting into the home during a power outage. It will also keep exhaust from causing a nuisance or hazard by exposing people or shrubs to high temperatures. The safest and preferred venting method is to extend the vent vertically through the roof.
2. Distance from doors and opening windows, or gravity or ventilation air inlets into building:
   a. Not less than 48 inches (1.2m) below;
   b. Not less than 48 inches (1.2m) horizontally from;
   c. Not less than 12 inches (305mm) above.
3. Distance from permanently closed windows:
   a. Not less than 12 inches (305mm) below, horizontally from or above.
4. Distance between bottom of termination and grade should be 12 inches (305mm) minimum. This is conditional upon plants in the area, and nature of grade surface. The grade surface must be a non-combustible material (i.e., rock, dirt). The grade surface must not be lawn. Distance between bottom of termination and public walkway should be 84 inches (2134mm) minimum.
5. Distance to combustible materials must be 24 inches (610mm) minimum. This includes adjacent buildings, fences, protruding parts of the structure, roof overhang, plants and shrubs, etc.
6. Termination Cap Location (Home Electrical Service)
   - Side-to-side clearance is to be the same as minimum clearance to vinyl inside corners.
   - Clearance of a termination cap below electrical service shall be the same as minimum clearance to vinyl soffits.
   - Clearance of a termination cap above electrical service will be 12 inches (305mm) minimum.
   - Location of the vent termination must not obstruct or interfere with access to the electrical service.

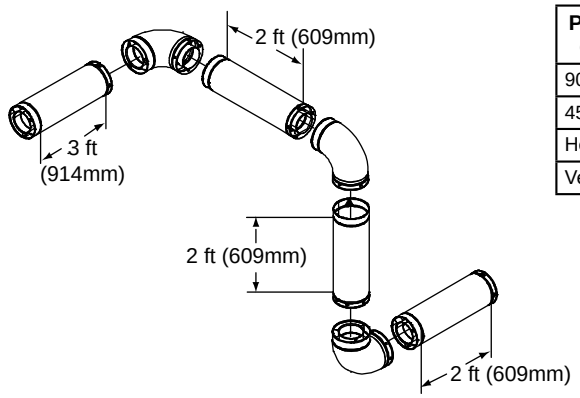
C. Equivalent Feet of Pipe

The table below can help you calculate the equivalent feet of pipe which is a method used to determine pellet vent size. **Figure 12.1.**

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or your dealer.

Example of 3 Elbow-Rear Vent Termination Calculaton



Pellet Venting Component	# of Elbows	Feet of Pipe	Multipled By	Equivalent Feet	Components Equivalent Feet
90° Elbow or Tee	3		X	**5**	15
45° Elbow			X	**3**	
Horizontal Pipe		7	X	**1**	7
Vertical Pipe		2	X	**0.5**	1
			Total Equivalent Feet		**23**

Note: This is a generic example and is not intended to represent any specific fuel type.

Figure 12.1

D. Pipe Selection Chart

The chart will help you in determining proper venting size according to the equivalent feet of pipe calculated above and the altitude above sea level of this installation. **Figure 12.2.**

Locate the calculated equivalent feet of pipe on the vertical left side of the chart. Move to the right horizontally on the chart until you reach your altitude above sea level.

If you fall below the diagonal line, 3 or 4 inch (76 to 102mm) pipe may be used. If it is anywhere above the diagonal line, a 4 inch (102mm) diameter pipe is required.

The chart reveals that a 90° elbow is 5 times as restrictive to the flow of exhaust gases under positive pressure as 1 foot of horizontal pipe, and a foot of horizontal pipe is twice as restrictive as a foot of vertical pipe.

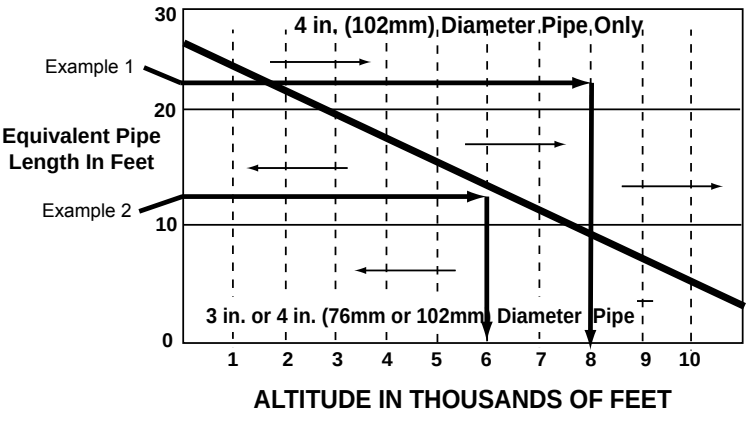


Figure 12.2

Example 1: If the equivalent length of pipe is 23 feet (7m)with altitude of 8,000 feet (2438m) you must use 4 inch (102mm) diameter type "L" or "PL" vent.

Example 2: If the equivalent length of pipe is 12 feet (3.7m) with altitude of 6,000 feet (1829m) you may use 3 or 4 inch (76 to 102mm) diameter type "L" or "PL" vent

WARNING

Fire Risk.

Do NOT pack insulation or other combustibles between firestops.

- ALWAYS maintain specified clearances around venting and firestop systems.
- Install firestops as specified.

Failure to keep insulation or other material away from vent pipe may cause fire.

5 Venting Systems

A. Alcove

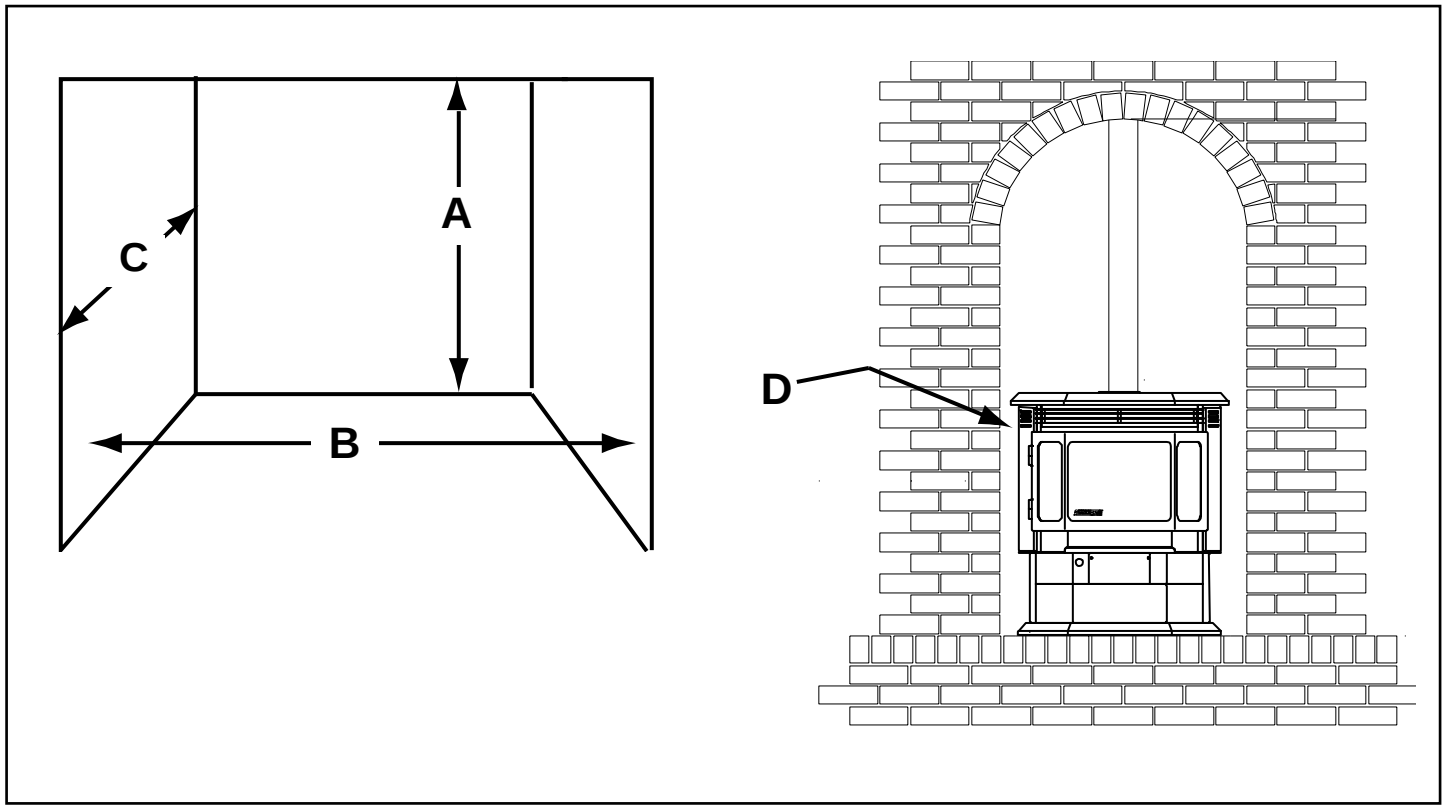


Figure 13.1

	Alcove Installation	Inches	Millimeters
A	Minimum Alcove Height	44	1117
B	Minimum Alcove Width	40-1/2	1029
C	Maximum Alcove Depth	36	915
D	Minimum Alcove Side Wall	6	152
not shown	Top of Unit to Combustibles	12-1/2	318

All minimums listed are to a combustible surface.

NOTE:
- Illustrations reflect typical installations and are FOR DESIGN PURPOSES ONLY.
- Illustrations/diagrams are not drawn to scale.
- Actual installation may vary due to individual design preference.

B. Through The Wall

Horizontal termination cap must be a minimum of 12 inches. (305mm) from the wall. Approved for mobile home installations. Must use 3 or 4 inch (76-102mm) “L” or “PL” listed pellet venting or listed double wall pipe and a Quadra-Fire outside air kit in mobile homes.

NOTE:
In Canada, where passage through a wall or partition of combustible construction is desired, the installation shall conform to CAN/CSA-B365

NOTICE:

Please note that while the minimum clearance for the termination cap is 6 inches (152mm) there is the possibly of soot buildup around the termination area. If this occurs we suggest to move the termination further away from the house to prevent it.

Straight Out

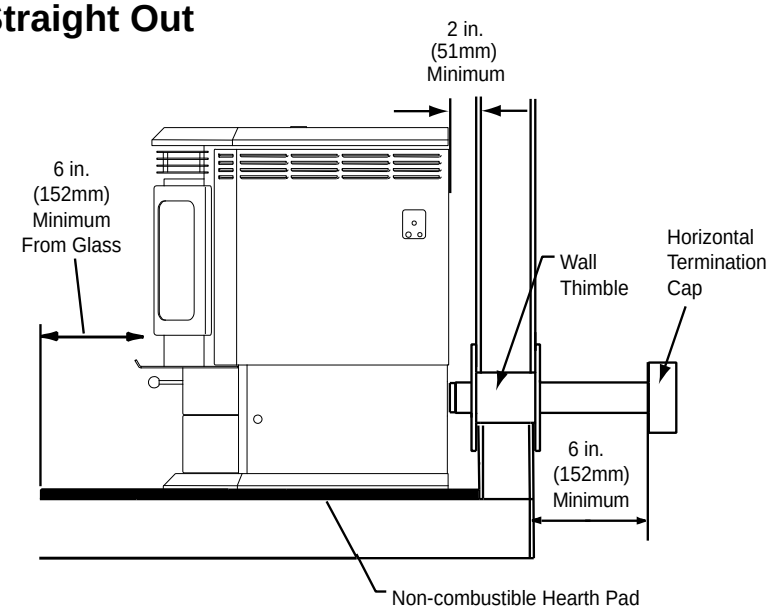


Figure 14.1

45 Degree

Illustration shows venting going in both directions. Choose which one is best for your installation.

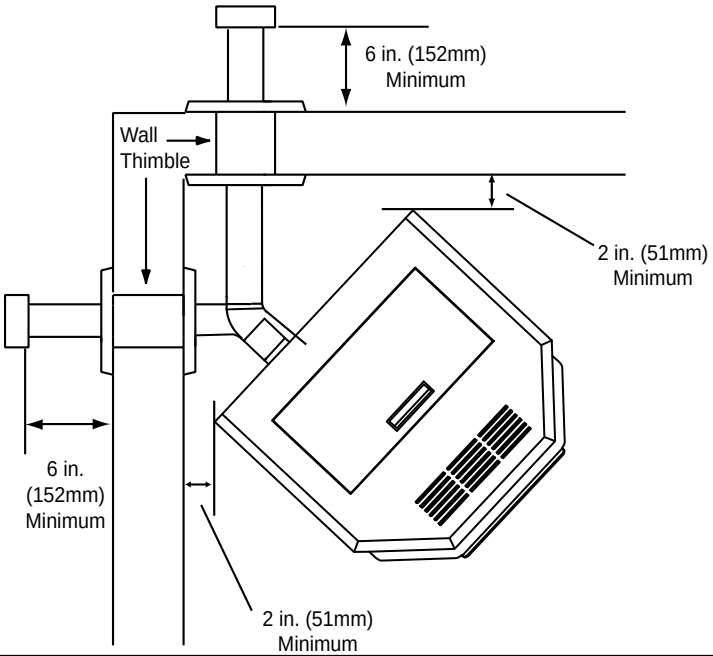


Figure 14.2

C. Vertical into Existing Class A Chimney

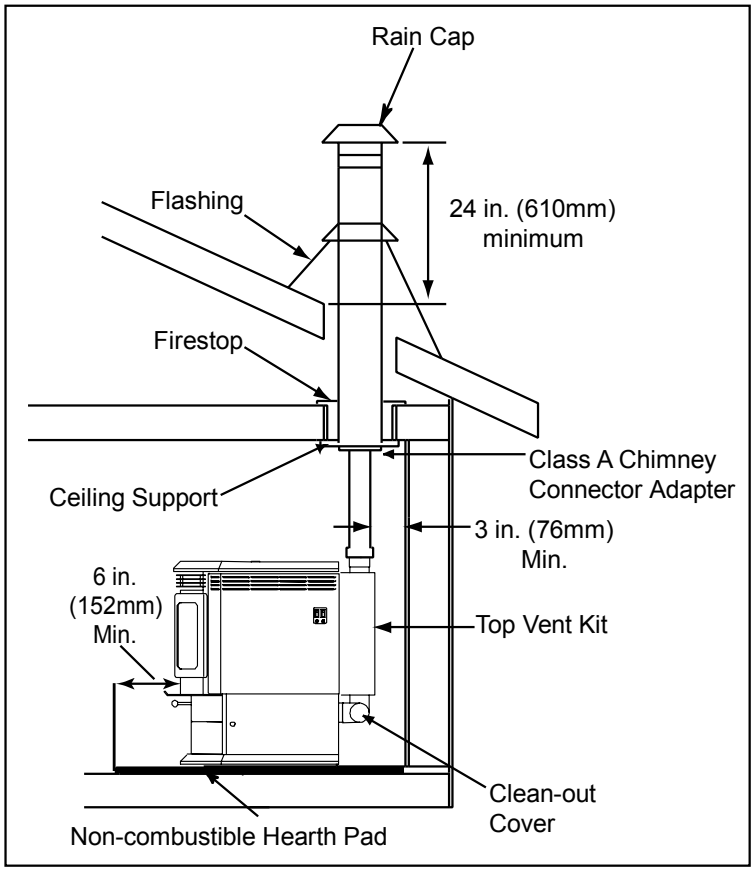


Figure 15.1

We recommend a minimum of 60 in. (1.5m) vertical, however above the eave is preferred.

Both installations are approved for mobile home installations. Must use 3 or 4 inch (76 to 102mm) “L” or “PL” Listed pellet venting or listed double wall pipe and Quadra-Fire outside air kit in mobile homes. Single wall pipe is approved for residential installations only.

D. Through The Wall & Vertical - External

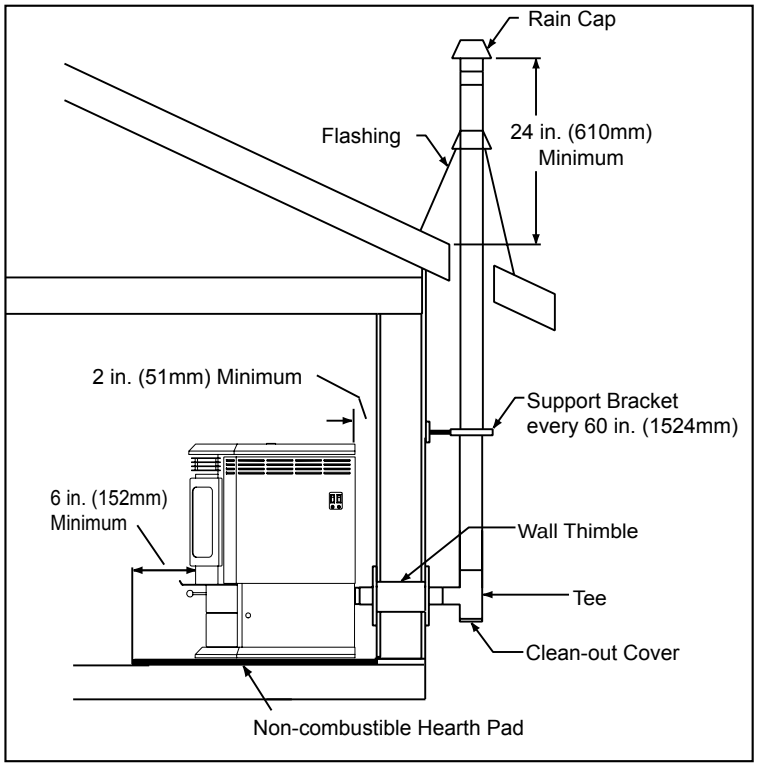


Figure 15.2

E. Vertical - Internal - Typical Installation

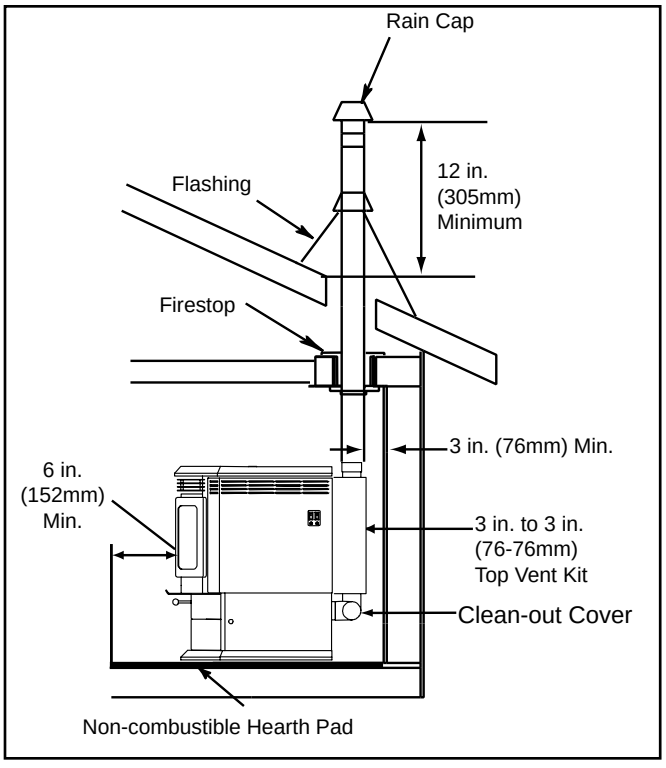


Figure 15.3

WARNING

Fire Hazard

Inspection of Chimney:

- Masonry chimney must be in good condition.
- Meets minimum standard of NFPA 211
- Factory-built chimney must be minimum6 in. (152mm) UL103 HT.

E. Masonry

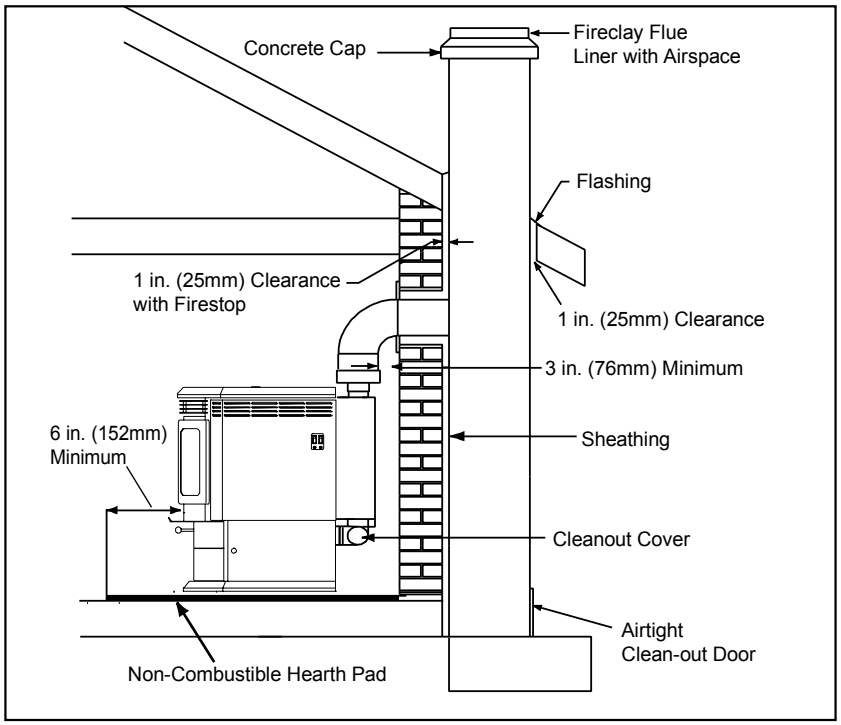


Figure 16.1

F. Alternate Masonry

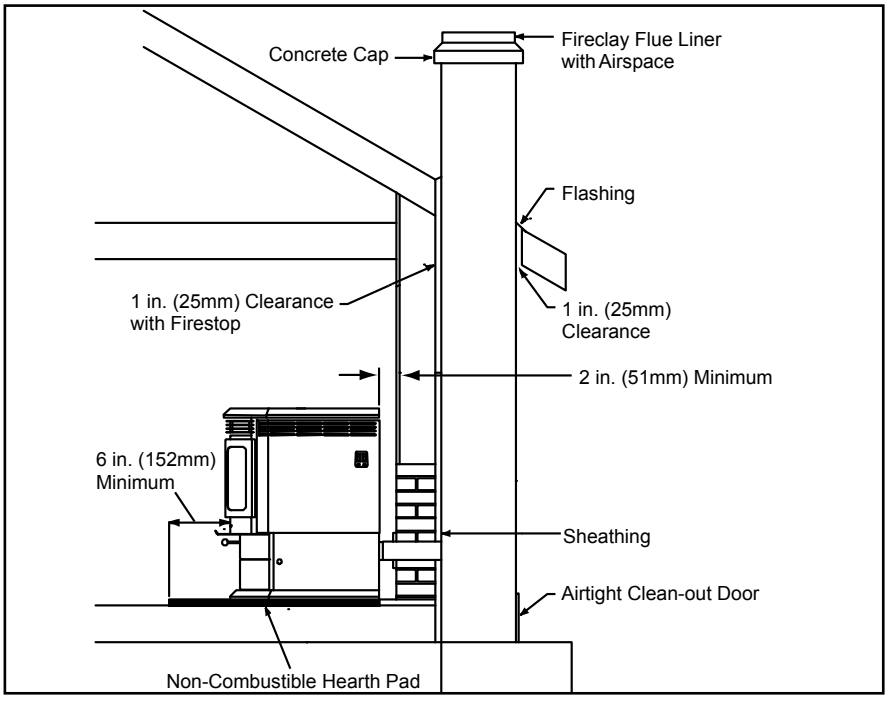


Figure 16.2

6 Mobile Home

A. Mobile Home Installation

You must use a Quadra-Fire Outside Air Kit for installation in a mobile home.

1. An outside air inlet must be provided for the combustion air and must remain clear of leaves, debris, ice and/or snow. It must be unrestricted while the appliance is in use to prevent room air starvation which causes smoke spillage. Smoke spillage can also set off smoke alarms.
2. The combustion air duct system must be made of metal. It must permit zero clearance to combustible construction and prevent material from dropping into the inlet or into the area beneath the dwelling and contain a rodent screen.
3. The appliance must be secured to the mobile home structure by bolting it to the floor (using lag bolts) in two places. Use the same holes that secured the appliance to the shipping pallet.
4. The appliance must be grounded with #8 solid copper grounding wire or equivalent, terminated at each end with an NEC approved grounding device.
5. Refer to Clearances to Combustibles and floor protection requirements on **pages 9 & 10** for listings to combustibles and appropriate chimney systems.
6. Use silicone to create an effective vapor barrier at the location where the chimney or other component penetrates to the the exterior of the structure.
7. Follow the chimney manufacturer's instructions when installing the vent system for use in a mobile home.
8. Installation shall be in accordance with the Manufacturers Home & Safety Standard (HUD) CFR 3280, Part 24.

⚠ WARNING

Installation must comply with Manufactured Home and Safety Standard (HUD), CFR 3280, Part 24.

⚠ WARNING

NEVER INSTALL IN A SLEEPING ROOM.

CAUTION

THE STRUCTURAL INTEGRITY OF THE MANUFACTURED HOME FLOOR, WALL AND CEILING/ROOF MUST BE MAINTAINED.

Do NOT cut through:

- Floor joist, wall, studs or ceiling trusses.
- Any supporting material that would affect the structural integrity.

CAUTION

Never draw outside combustion air from:

- Wall, floor or ceiling cavity
- Enclosed space such as an attic or garage

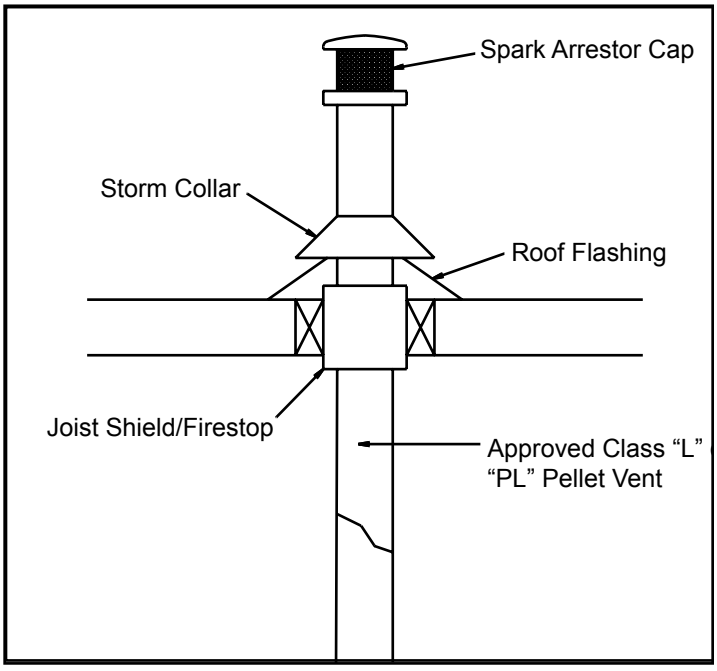


Figure 17.1

7 Appliance Set-Up

A. Outside Air Kit Instructions

Included in Kit: 1 piece of 2 inch x 3 foot flex hose, 2 hose clamps, 1 collar assembly, termination cap assembly, 1 trim ring, 12 screws.

Tools Needed: Phillips head screw driver; wire cutters; hole saw or jig saw.

1. Rear Installation

a. Measure distance from floor to air vent opening in appliance and mark location on wall.

Use saw to cut opening in wall. Cut a 2-1/2 to 3 inch (64-76mm) opening on inside wall and a 3 to 3-1/2 inch (76-89mm) opening on outside of house.

b. Use hose clamp to secure flex pipe to collar assembly.

c. Slide trim ring over flex pipe and run pipe through wall.

d. Attach hose to outside termination cap with second hose clamp.

e. Secure termination cap to outside surface.

f. Secure trim ring to interior wall.

g. Snip corners and remove plate. **Figure 18.1**.

h. Align and secure collar assembly with 2 of the 4 holes as shown. **Figure 18.2.**

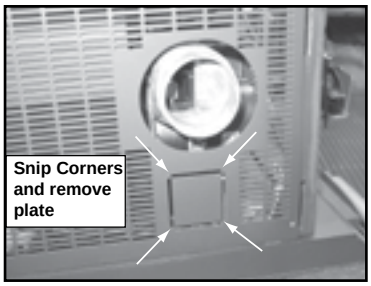


Figure 18.1

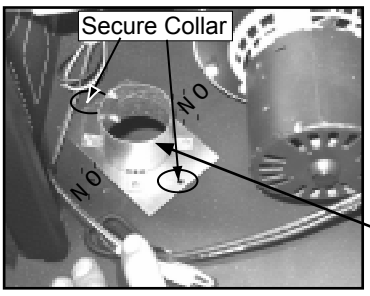


Figure 18.2

2. Floor Installation

a. Remove rear screen and set aside.

b. Install cover plate over hole in right rear floor.

c. Cut a 2 inch minimum hole in the floor to accommodate flex hose.

d. Attach hose to termination cap.

e. Place rope under pedestal to close off air leaks.

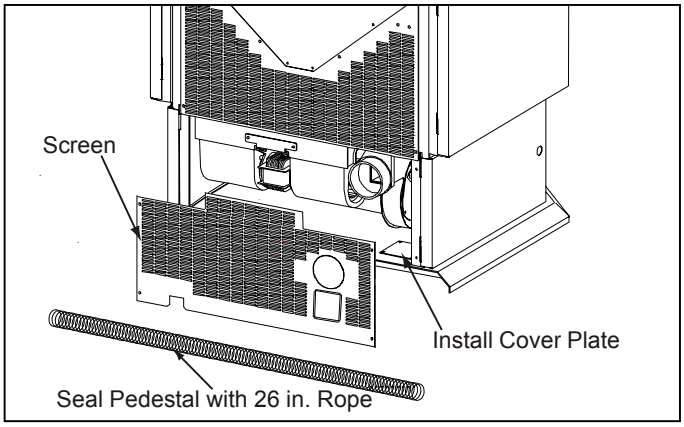


Figure 18.3

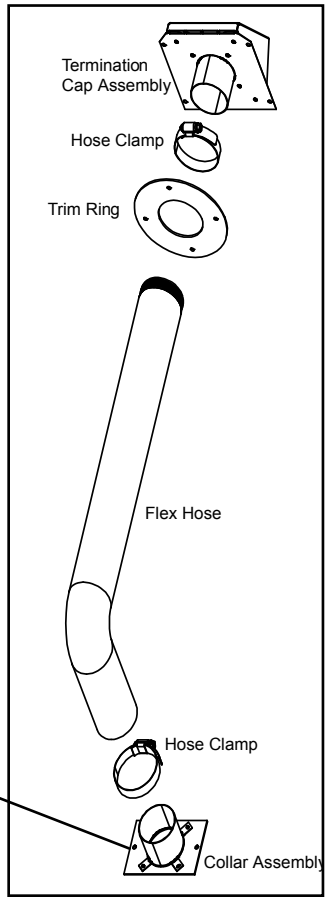


Figure 18.4

CAUTION

Never draw outside combustion air from:
- Wall, floor or ceiling cavity
- Enclosed space such as an attic or garage

B. Top Vent Adapter Installation

3 to 3 inch Top Vent Adapter
3 to 6 inch Top Vent Offset Adapter

Installing the Top Vent Adapter

1. Put a layer of high temperature silicone on the 3 inch (76mm) exhaust outlet.
2. Slide the top vent adapter onto the rear exhaust outlet and adjust the assembly to a vertical position.
3. Drill 4 holes with #26 drill bit (provided) into the back of the appliance using the outer shield as a pattern (make sure the assembly is vertical). **Figure 19.1**
4. Install the 4 mounting screws.
5. Install the vent pipe into the top vent adapter (be sure to silicone all joints).
6 To clean the top vent adapter, open the clean-out cover. **See Figure 19.1**

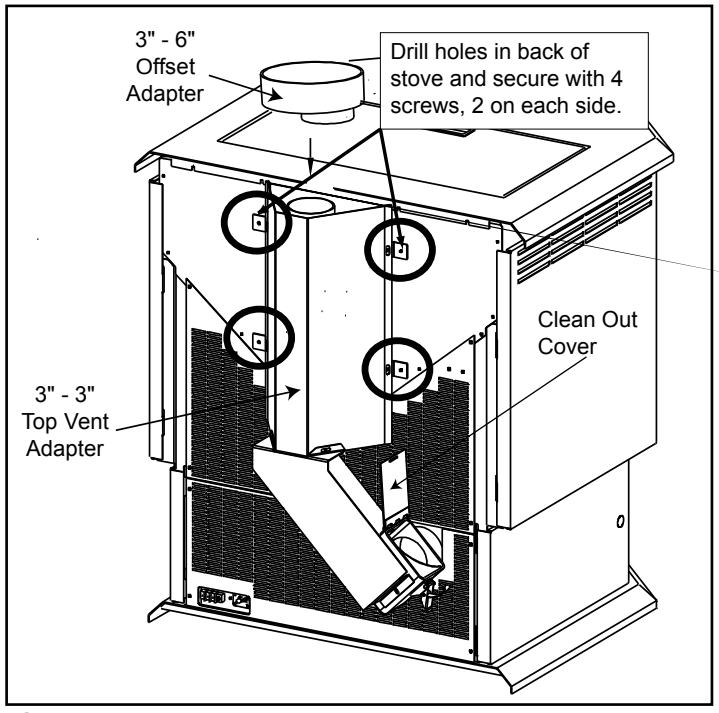


Figure 19.1

C. Rear Vent and Rear Vent to Top Vent Adapter Installation

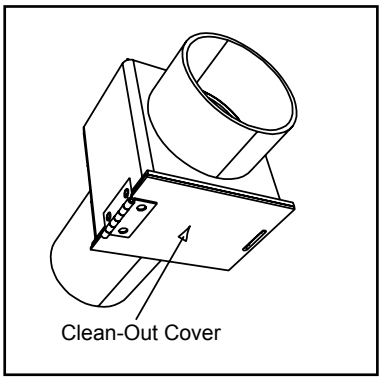


Figure 19.2 - Rear Vent Adapter

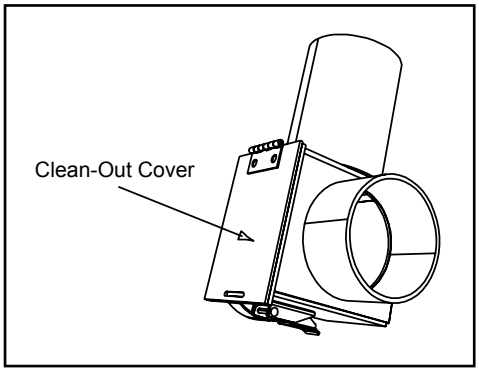


Figure 19.3 - Rear to Top Vent Adapter - 90°

1. Put a layer of high temperature silicone on the 3 inch (76mm) exhaust outlet.
2. Slide the adapter onto the rear exhaust outlet and adjust the assembly to the appropriate position.
3. Install the vent pipe into the adapter (be sure to silicone all joints)

D. Optional Brick Set Installation

1. Remove the baffle first, follow instructions on **page 34**.
2. Slide bottom of left rear brick in first; rotate top edge toward rear of appliance and then rotate outer edge toward rear of appliance, until brick slides into place. **Figure 20.1.**
3. Repeat with right rear brick.
4. Place left side brick along left side of firebox, making sure chamfered (beveled) back edge of brick fits snugly next to rear brick. **Figure 20.2.**
5. Repeat with right side panel.
6. Complete brick set, correctly installed. **Figure 20.3.**

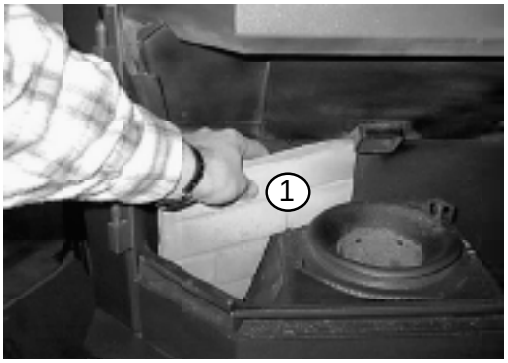


Figure 20.1

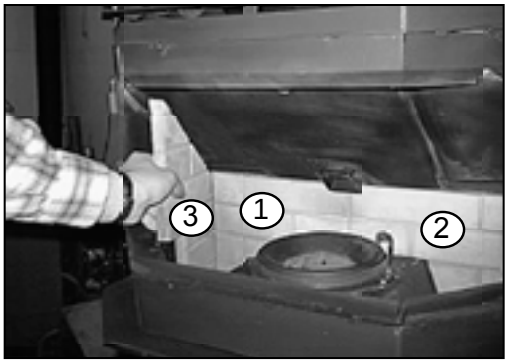


Figure 20.2

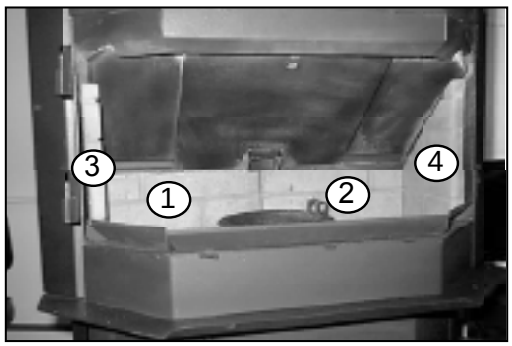


Figure 20.3

E. Brick Clip Installation

WARNING

Risk of Injury.

- Brick may have small wires protruding from the back of brick.

1. After the brick set has been installed, 2 brick clips need to be installed on the outer edge of each baffle to hold the brick set in place.
2. Remove 2 baffles from the appliance. Slide the baffle up and the bottom edge should fall down and then lift the baffle out.
3. Using pliers, bend the brick clip slightly past 90° in the direction shown in **Figure 20.4**.
4. Position the brick clip as shown in **Figure 20.4** and use pliers to crimp around the outside edge of the baffle as shown in **Figure 20.5**.

Note: Figure 20.5 shows the finished shape of the brick clip, after being bent around the outside edge of the baffle.

5. Slide the baffle back into place making sure that the brick clip holds the side brick toward the wall of the firebox. Push back on the sides so they will keep the rear bricks in place. Repeat for opposite side.

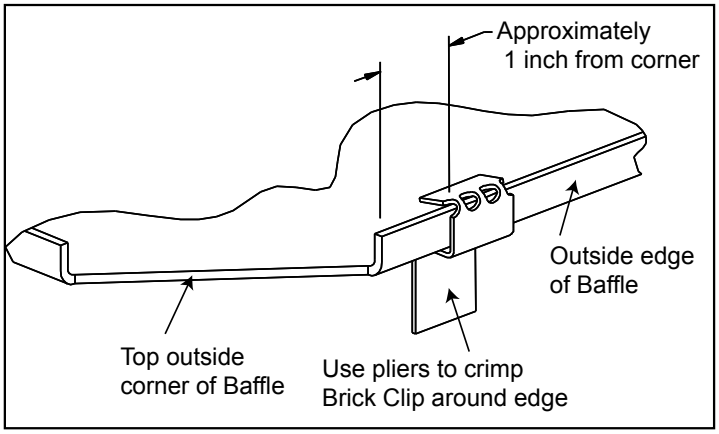


Figure 20.4

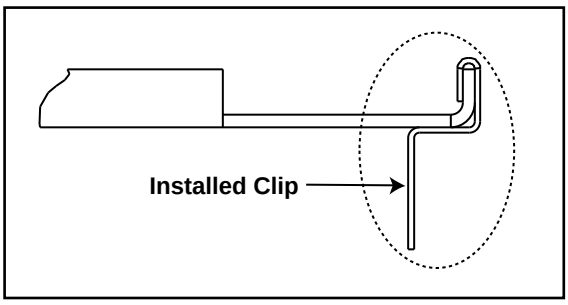


Figure 20.5

F. Optional Log Set Placement Instructions

CAUTION

Logs are FRAGILE. Use extreme care when handling or cleaning logs.

1. Place the front log in first as shown in **Figure 21.1**. Place log between firepot and face of appliance with charred area surrounding firepot.

2. Set the left and right logs onto the front log, placing the holes in the base of the left and right logs over the locating pins in front log. See **Figure 21.2.** Ensure that the charred ends are facing the firepot.

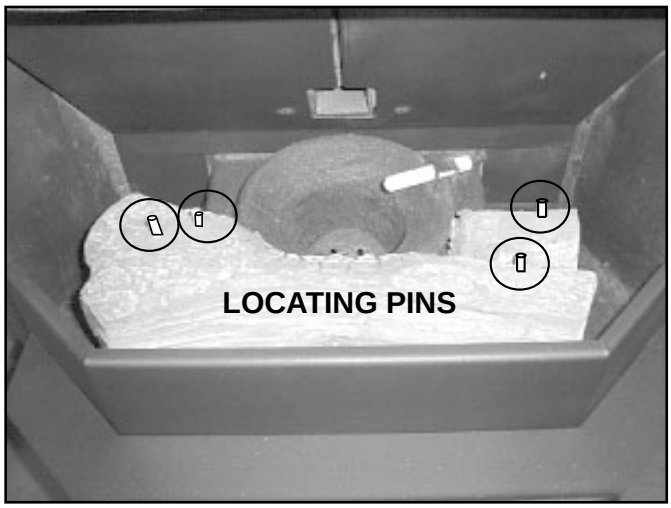


Figure 21.1

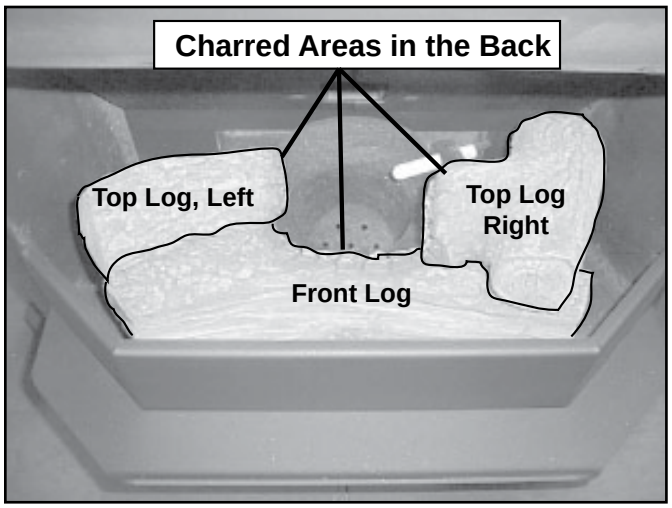


Figure 21.2

NOTE:
Due to the abrasive nature of a pellet appliance fire, the logs are not covered under warranty. Any placement variation other than shown here can cause excessive heat and shall void the appliance warranty.

G. Optional Gold or Nickel Grille Assembly

CAUTION

Do not open top all the way back so the weight of the top is supported by the hinges. **It will damage the hinges.** It will be necessary to prop the top up with a supporting brace. You can use the shipping box as shown in Figure 1.

1. Remove grille from packaging.
2. Lift top up and place shipping box in vertically.
3. Place 1 flap of the box lid into opening for stability.
4. Align the 3 holes in the stove with the holes in the grille.
5. Use a Phillips screwdriver to secure in place.
6. Remove shipping box and lower top.

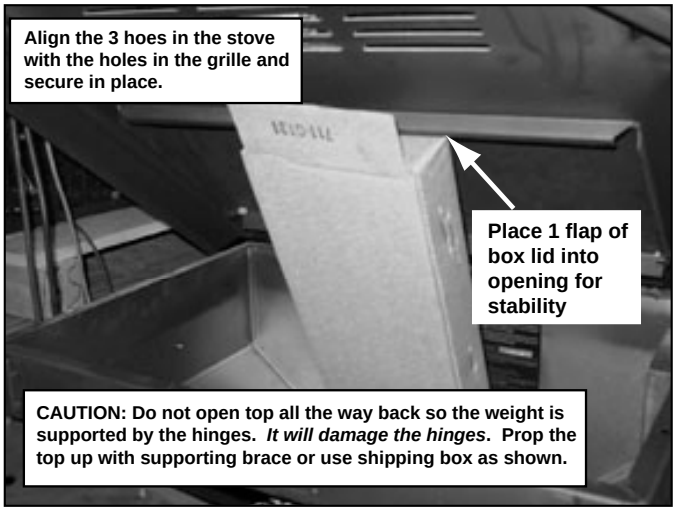

Align the 3 hoes in the stove with the holes in the grille and secure in place.
Place 1 flap of box lid into opening for stability
CAUTION: Do not open top all the way back so the weight is supported by the hinges. It will damage the hinges. Prop the top up with supporting brace or use shipping box as shown.

Figure 21.3

H. Installing Logo

1. Remove logo from packaging.
2. The logo has 2 studs on the back.
3. Install the logo on the lower left side of the center panel by pressing the 2 studs into the pre-drilled holes. **See Figure 21.4.**

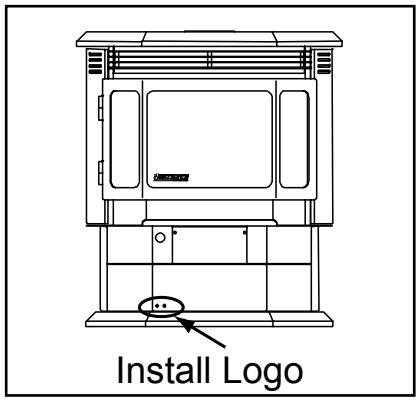


Figure 21.4

I. Door Installation

To install door:

1. Carefully remove door from packaging.
2. Line up hinges with hinge pins on appliance body, and slide door down until it sits securely on pins. **Figure 22.1**.
3. If door is plated, be sure to clean all plated surfaces and glass with a glass cleaner to ensure all oils are removed before your first burn.
4. Remove all labels from glass before burning appliance.

To adjust latches:

1. Close door securely.
2. Place rod in slot on the bracket on the door and close latch.
3. Latch must close tightly enough to ensure an airtight seal between the door and the body of the appliance. To increase tension on the latch, turn the rod clockwise a few turns, then attempt to close the latch, until it is snug. Do not overtighten; you should be able to close the latch with your hand. **Figure 22.2**.
4. After adjusting the latch, place a Phillips head screw driver in the end of the rod, and tighten the nut with a wrench. This will maintain the correct tension on the rod and latch.

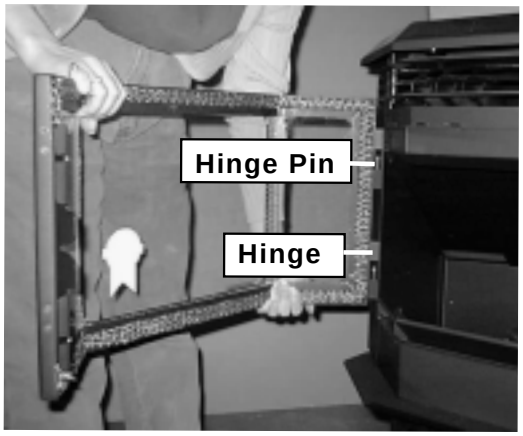


Figure 22.1

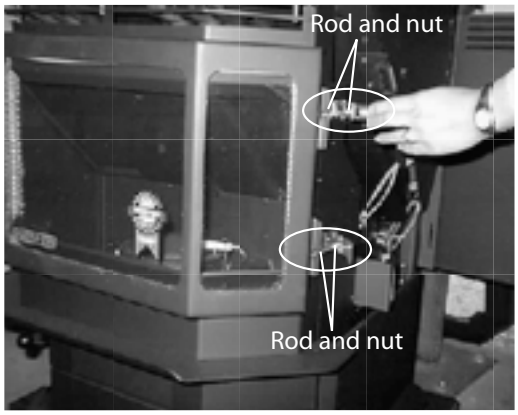


Figure 22.2

J. Thermostat Installation

1. A 12 volt AC thermostat is required to operate this pellet appliance. You may use the included wall mount thermostat or purchase an optional programmable thermostat or remote control. It is equipped with an adjustable heat anticipator. The current rating is .05 amps. The anticipator needs to be adjusted to the lowest setting available.
2. When mounting a thermostat on a wall, be sure to follow your thermostat installation instructions carefully.

   NOTE: Thermostat must be mounted level for accurate readings. The thermostat should be mounted on an inside wall and not in direct line with the appliance convection air.

   NOTE: If the thermostat is located too close to the appliance, you may need to set the temperature setting slightly higher to maintain the desired temperature in your home.
3. There is a 4 screw terminal block located on the back lower left corner of the stove directly above the power cord inlet. The center 2 screws are for the thermostat wires.

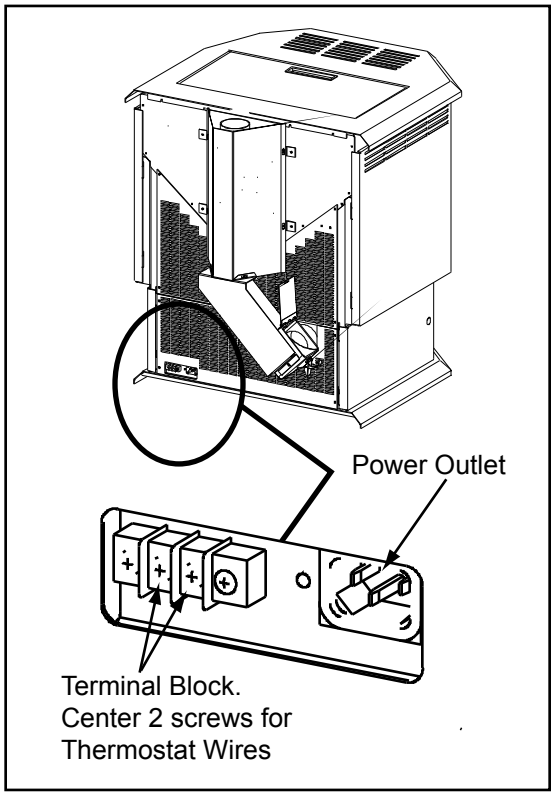


Figure 22.3

CAUTION

Shock hazard.

- Do NOT remove grounding prong from plug.
- Plug directly into properly grounded 3 prong receptacle.
- Route cord away from appliance.
- Do NOT route cord under or in front of appliance.

8 Operating Instructions

A. Fuel Size And Material

1. Wood Pellets

Fuel pellets are made from sawdust or wood by-products. If the source material is hardwood, they can have a higher mineral content, creating more ash. Fuels containing bark will also have higher ash content. Minerals and other noncombustible materials such as sand will turn into a hard, glass-like substance called a clinker when heated to the extreme temperatures our firepot reaches. This is what forms clinkers in the bottom of the firepot. Trees from different areas will vary in mineral content. That is why some fuels produce more clinkers than others. Pellets are manufactured in either 1/4 inch or 5/16 inch (6-8mm) diameter and should be **no more than 1-1/2 inches (38mm) in length**. Pellet lengths may even vary by lot from the same manufacturer which is why the feed rate may need to be adjusted occasionally. **If you burn pellets longer than 1-1/2 inches (38mm) you may have an inconsistent fuel feed rate and/or missed ignitions.**

Pellet fuel quality can greatly fluctuate. We recommend using premium grade fuel with ash content less than 1%. Even in some fuel labeled “premium” ash content can vary from bag to bag and possibly exceed 1%. High ash fuel, or lack of maintenance, can cause the firepot to fill up and thus create a potential for smoking, sooting and possible hopper fires.

Always burn dry fuel. Burning fuel with high moisture content takes heat from the fuel and tends to cool the appliance, robbing heat from your home. Damp pellet fuel can clog the feed system.

We recommend that you buy fuel in multi-ton lots whenever possible. Buying large quantities of fuel at once will greatly reduce the number of times the feed adjustments will need to be made. However, we do recommend trying various brands before purchasing multi-ton lots to ensure your satisfaction.

⚠ WARNING

Fire Risk.

- High ash fuels, or lack of maintenance, can cause the firepot to overfill. Follow proper shutdown procedure if ash buildup exceeds half way point in firepot.
- Failure to do so could result in smoking, sooting and possible hopper fires.

2. Shelled Field Corn

Extensive factory and field testing has demonstrated shelled field corn to be an efficient and very economical fuel. We recommend the use of a 50-50 blend of corn and wood pellets. The only change in operation is that the feed rate may require a slight adjustment. The BTU output of the appliance varies slightly compared to pellets, depending on the quality of the corn used. In cases where it is acceptable for the appliance to run full time, 100% corn will work after the fire has been started using wood pellets.

B. General Operating Information

1. Thermostat Calls For Heat

The appliance is like most modern furnaces; when the thermostat calls for heat, your appliance will automatically light and deliver heat. When the room is up to temperature and the thermostat is satisfied, the red call light will go off and the appliance will shut down.

2. Heat Output Controls

This appliance is equipped with a heat output control switch that has three settings or burn rates; low, medium and high. The appliance will turn on and off as the thermostat demands. When the thermostat calls for heat, the appliance will start up on the high setting for the first 4 minutes and 15 seconds, then automatically switch to the burn rate for which it is set. If the appliance is set at one of the lower settings, it will run quieter but take longer to heat up an area than if it were set at a higher burn rate. Regardless of the burn rate, when the area is warm enough to satisfy the thermostat, the appliance will shut off.

3. Fan Speed Switch

This switch will adjust the speed of the room distribution air fan or convection blower on all three settings. This means you have six different blower speeds available as there is a high and low on each setting.

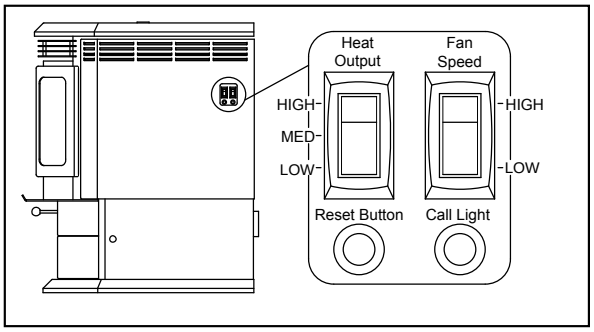


Figure 23.1

⚠ WARNING

Fire Risk.
Keep combustible materials, gasoline and other flammable vapors and liquids clear of appliance.

- Do NOT store flammable materials in the appliance’s vicinity.
- **DO NOT USE GASOLINE, LANTERN FUEL, KEROSENE, CHARCOAL LIGHTER FLUID OR SIMILAR LIQUIDS TO START OR “FRESHEN UP” A FIRE IN THIS HEATER.**
- **DO NOT BURN GARBAGE OR FLAMMABLE FLUIDS SUCH AS GASOLINE, NAPHTHA OR ENGINE OIL.**
- Keep all such liquids well away from the heater while it is in use.
- Combustible materials may ignite.

C. Before Your First Fire

1. First, make sure your appliance has been properly installed and that all safety requirements have been met. Pay particular attention to the fire protection, venting and thermostat installation instructions.
2. Double check that the ash drawer and firebox are empty!
3. Check the position of the thermocouple, located above the firepot, and make sure that it protrudes approximately 3/4 inch (19mm) into the firepot.
4. Close the front door.

NOTICE: The tip of the thermocouple must be in contact with the inside end of the thermocouple cover or missed ignitions can occur.

D. Starting Your First Fire

1. A thermostat is required for proper operation of this appliance, except for corn. At this time, fill the hopper with pellets, set the thermostat to its lowest setting. Plug the power cord into nearby outlet.
2. The exhaust blower will stay on for approximately 10 minutes even though the thermostat is not calling for heat. This is normal.
3. Locate the heat output control switch mounted on the upper right corner of the right side panel. Switch it to the high setting by pushing the top of the switch in, then adjust the thermostat to its highest setting. The red call light located on the upper right corner of the right side panel will be on. This indicates the thermostat is calling for heat.
4. The fuel feed system and the igniter should now be on.
5. For your first fire it will be necessary to press the reset button every two minutes until pellets start to drop into the firepot, then press button 1 more time. This will fill the feed system and allow the appliance to begin dropping pellets. The appliance will continue to run as long as the thermostat is calling for heat.
6. Once the appliance has ignited, let the it burn for approximately 15 minutes, then set the thermostat to the desired room temperature. Adjust the heat output control switch to the desired setting.

E. Fire Characteristics

A properly adjusted fire with the heat output control switch set on “high” has a short active flame pattern that extends out of the firepot approximately 4 to 6 inches (102 to 152mm). If the fire has tall flames with black tails and seems somewhat lazy, the feed rate will need to be reduced. This is done by sliding the fuel adjustment control rod down, which will reduce the feed. If the fire is not 4 to 6 inches (102 to 152mm) tall, slide the fuel adjustment control rod up to increase the feed. A medium and low setting will give a shorter flame. The flame will rise and fall somewhat. This is normal.

F. Feed Rate Adjustment Instructions

The feed adjustment control rod is factory set, and should be adequate for most fuels. The set screw is located at the bottom of the hopper and *set loose at the factory* so the fuel adjustment control rod will slide up and down by only loosening the thumb screw at the top. **See Figure 24.1.** Do not re-tighten bottom set screw.

However, if the flame height is too high or too low, you will need to adjust the feed rate. Wait until the appliance has been burning for 15 minutes before making your adjustments and allow 15 minutes for feed adjustment to take effect.

1. Loosen the thumb screw. **Figure 24.1**
2. Adjust the fuel adjustment control rod towards the **"+"** symbol to increase the feed rate and flame height or towards the **"-"** symbol, to decrease the feed rate and flame height.
3. Re-tighten the thumb screw.

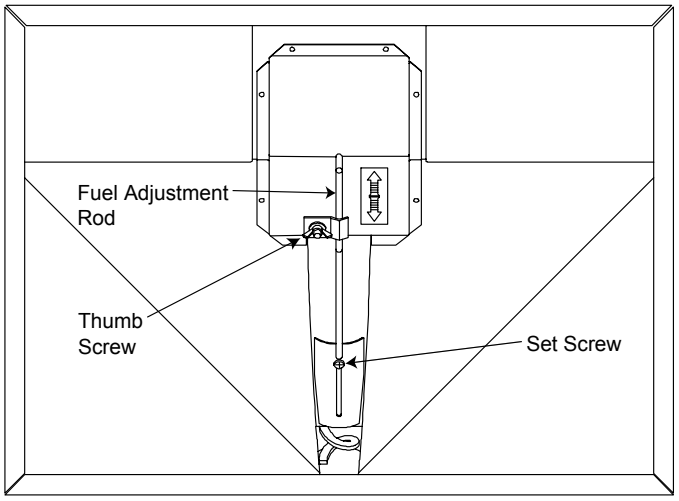


Figure 24.1

G. Ignition Cycles

1. During each ignition cycle, it is normal to see some smoke in the firebox. The smoke will stop once the fire starts.
2. The convection blower will automatically turn on after your appliance has reached the set temperature on the "high" setting. This blower transfers heat from your appliance into the room, and will continue to run after the thermostat has stopped calling for heat until the appliance has cooled down.
3. Occasionally the appliance may run out of fuel and shut itself down. When this happens, the red call light will be on. To restart it, fill the hopper and press the reset button. **(See Figure 23.1, page 23)**. When you press the reset button the red call light will go out. Release the button and the light will come back on. You should see a fire shortly. If not, follow the instructions on **page 24**, of "Starting Your First Fire".

CAUTION

Odors and vapors released during initial operation.
- Curing of high temperature paint.
- Open windows for air circulation.

Odors may be irritating to sensitive individuals.

WARNING

Fire Risk
Do NOT operate appliance:
- With appliance door open.
- Firepot floor open.
- Cleaning slide plates open.

Do NOT store fuel:
- Closer than required clearances to combustibles to appliance
- Within space required for loading or ash removal.

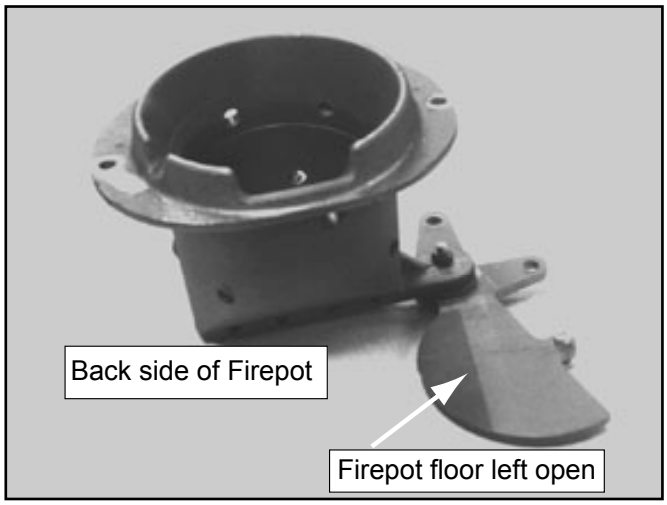


Figure 24.1 - DO NOT LEAVE FIREPOT FLOOR OPEN

H. Frequently Asked Questions

ISSUES	SOLUTIONS
1. Metallic noise.	1. Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of your insert.
2. Ash buildup on glass.	2. This is normal. Clean the glass.
3. Glass has turned dirty.	3. Excessive build up of ash. The lower burn settings will produce more ash, the higher burn settings produce less. The more it burns on low the more frequent cleaning of the glass is required.
4. Fire has tall flames with black tails and is lazy.	4. The feed rate needs to be reduced or the firepot needs cleaning. Heat exchanger of exhaust blower needs cleaning.
5. Smokey start-up or puffs of smoke from the airwash.	5. Either the firepot is dirty or there is too much fuel at start-up and not enough air. Close down feed rate 1/4 inch at a time until this no longer happens.
6. Large flame at start-up.	6. This is normal. Flame will settle down once the fire is established.

9 Troubleshooting

With proper installation, operation, and maintenance your appliance will provide years of trouble-free service. If you do experience a problem, this troubleshooting guide will assist a qualified service person in the diagnosis of a problem and the corrective action to be taken. ***This troubleshooting guide can only be used by a qualified service technician.***

Symptom	Possible Cause	Corrective Action
Plug in appliance - No response.	No current to outlet.	Check circuit breaker at service panel.
	.7 amp fuse defective.	Replace fuse.
	#3 snap disc tripped or defective.	Reset or replace snap disc.
	Control box defective.	Replace control box.
Call light on. No fire. No fuel in firepot.	Out of fuel.	Check hopper. Fill with fuel.
	#2 snap disc may be defective.	Replace snap disc.
	Vacuum switch not closing, no vacuum.	Check exhaust blower is plugged in and operating. Check vacuum switch is plugged in. Check vacuum hose is in good condition, clear and connected at both ends. Check thermocouple is in good condition and plugged in properly. Make sure venting system is clean. Make sure front door is closed.
	Control box defective.	Replace control box.
Call light on. No fire. Partially burned fuel in firepot.	Firepot clean-out plate not closed.	Check that firepot clean-out plate is fully closed.
	Firepot is dirty (missed ignition).	Clean firepot. Make sure there is no clinker in the firepot. Clinkers may have to be broken up with firepot scraper tool or other means.
Call light on. No fire. Unburned pellets in firepot.	Firepot clean-out plate not closed.	Check that firepot clean-out plate is fully closed.
	Firepot is dirty.	Clean firepot. Make sure there is not a clinker in the firepot. Clinkers may have to be pushed out of firepot with firepot scraper tool or other means.
	Ignition hole blocked.	Scrape with solid piece of wire.
	Igniter not working.	Remove ash drawer to see if igniter is glowing red on start-up. Check igniter wires for good connection. Replace igniter using 1/4 inch male /female spade connectors.
	Control box defective.	Replace control box.
Slow or smoky start-up.	Firepot clean-out plate not closed.	Check that firepot clean-out is fully closed.
	Firepot is dirty.	Clean firepot. Make sure there is not a clinker in the firepot. Clinkers may have to pushed out of firepot with firepot scraper tool or other means.
	Excessive amount of fuel at start-up.	Reduce feed rate using feed rate adjustment control rod located inside hopper.

Symptom	Possible Cause	Corrective Action
Slow or smoky start-up (Cont'd)	Dirty exhaust and/or venting system.	Check for ash build up in unit, including behind rear panels, firebox, heat exchanger, exhaust blower and venting.
Feed system fails to start.	Out of fuel.	Check hopper, fill with fuel.
	#2 snap disc may be defective.	Replace snap disc. Firebox door must be closed securely.
	Vacuum switch not closing. No vacuum.	Check exhaust blower is plugged in and operating. Check vacuum switch is plugged in. Check vacuum hose is in good condition, clear and connected at both ends. Check thermocouple is in good condition and plugged in properly. Make sure venting system is clean. **NOTE:** High winds blowing into the venting system can pressurize the firebox causing loss of vacuum.
	Feed system jammed or blocked.	Empty hopper of fuel. Use a wet/dry vacuum cleaner to remove remaining fuel, from hopper, including feed tube. Check feed chute for obstructions. Loosen 2 screws and jiggle feed assembly.
	Feed spring not turning with feed motor.	Check that set screw is tight on feed spring shaft at end of feed motor.
	Feed motor defective or not plugged in.	Check connections on feed motor, replace if defective.
No call light. Unit does not begin start sequence.	Thermostat not set to a high enough temperature.	Adjust thermostat above room temperature.
	Snap Disc #3 tripped.	Reset snap disc.
	No power.	Connect to power.
	Fuse blown.	Replace fuse.
	Connections at thermostat and/or appliance not making proper contact.	Check connections at thermostat and appliance.
	Defective thermostat or thermostat wiring.	Replace thermostat or wiring. NOTE: To test thermostat and wiring, use a jumper wire at the thermostat block on the unit to by-pass thermostat and wiring.
	Control box defective.	Replace control box.
Unit fails to shut off.	Call light on.	Turn thermostat off. If call light does not go out, disconnect thermostat wires from unit. If call light does go out, thermostat or wires are defective.

Symptoms	Possible Cause	Corrective Action
Convection blower fails to start.	#1 snap disc defective.	Replace snap disc.
	Blower not plugged in.	Check that blower is plugged into wire harness.
	Blower is defective.	Replace blower.
	Control box is defective.	Replace control box.
Exhaust blower fails to start or does not shut off.	Blower not plugged in.	Check that blower is plugged into wire harness.
	Blower is clogged with ash.	Clean exhaust system.
	Blower is defective.	Replace blower.
	Control box is defective.	Replace control box.
Large, lazy flame, orange color. Black ash on glass.	Dirty appliance. Poor fuel quality, high ash content.	Clean unit, including firepot, heat exchangers and venting system. Remove stainless steel baffle from firebox to clean ash from on top of baffle. Clean behind rear brick panels. Change fuel brand to premium.
	Firepot clean-out plate not completely closed.	Check that firepot clean-out plate is fully closed.
	Excessive amount of fuel.	Reduce feed rate using feed rate adjustment control rod located inside hopper.
Nuisance shutdowns.	Low flame.	Increase feed by opening feed rate adjustment control rod located inside hopper.
	Sawdust buildup in hopper.	Clean hopper, see **page 31.**
	Feed motor is reversing.	Check for good connections between feed motor and wire harness.
	Defective thermocouple.	Replace thermocouple.
	Defective control box.	Replace control box.
	Firepot more than 1/2 full.	See **page 33** for detailed instructions for “High Ash Fuel Content Management”
Appliance calls for heat. Call light illuminates. Exhaust blower starts. No feed or igniter.	Thermocouple is defective or not properly plugged in.	Check connections on thermocouple or replace if defective. A flashing yellow light on the control box indicates a problem with the thermocouple.
	Defective control box	Replace control box.

10 Maintaining & Servicing Your Appliance

A. Proper Shutdown Procedure

⚠ CAUTION

Shock and Smoke Hazard

- Turn down thermostat, let appliance completely cool and exhaust blower must be off. Now you can unplug appliance before servicing.
- Smoke spillage into room can occur if appliance is not cool before unplugging.
- Risk of shock if appliance not unplugged before servicing appliance.

Follow the detailed instructions found in this section for each step listed as referenced in the chart below.

B. Quick Reference Maintenance Chart

Cleaning or Inspection	Frequency		Daily	Weekly	Monthly	Yearly
Ash Pan	Every 5 bags of fuel	OR		X		
Ash Removal from Firebox	More frequently depending on the fuel type or ash build-up	OR		X		
Beneath Heat Exchanger	Every 1 ton of fuel	OR			X	
Blower, Combustion (Exhaust)	More frequently depending on the fuel type	OR				X
Blower, Convection	More frequently depending on operating environment	OR				X
Door Latch Inspection	Prior to heating season	OR			X	
Exhaust Path	More frequently depending on ash build-up	OR				X
Firebox - Prepare for Non-Burn Season	At end of heating season	OR				X
Firepot - Burning pellets - hardwood	Every 3 bags	OR	X			
Firepot - Burning pellets - softwood	Every 5 bags	OR	X			
Firepot - Burning Corn	Every 1 bag	OR	X			
Glass	When clear view of firepot becomes obscure	OR		X		
Heat Exchanger & Drop Tube	Every 1 ton of fuel	OR			X	
Hopper	Every 1 ton of fuel or when changing fuel types	OR			X	
Top Vent Adapter	More frequently depending on the fuel type or ash build-up	OR				X
Venting System	More frequently depending on the fuel type	OR				X

NOTICE: These are recommendations. Clean more frequently if you encounter heavy build-up of ash at the recommended interval or you see soot coming from the vent. ***Not properly cleaning your appliance on a regular basis will void your warranty.***

C. General Maintenance

1. Types of Fuel

Depending on the type of fuel you are burning will dictate how often you have to clean your firepot.

If the fuel you are burning has a high dirt or ash content or you are burning shelled field corn, it may be necessary to clean the firepot more than once a day.

Dirty fuel will cause clinkers to form in the firepot. A clinker is formed when dirt, ash or a non-burnable substance is heated to 2000°F (1093°C) and becomes glass-like. See "**D" page 33** in this section for more details on fuels with high ash content.

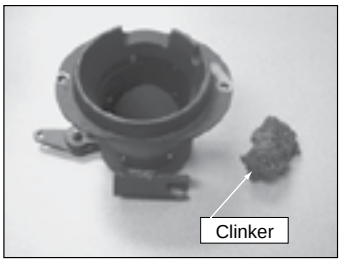


Figure 29.1 - Clinker

2. Cleaning Firepot with Cleaning Rod & Firepot Scraper

- **Frequency:** Daily or more often as needed
- **By:** Homeowner

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off. If you are just cleaning the firepot, there is no need to unplug the appliance.

b. Pull firepot cleaning rod OUT and IN a couple of times to help shake debris loose. If rod is hard to pull, it may be necessary to use your firepot clean-out tool to chip away material that has built up on the bottom plate of the firepot and to push out any clinkers. Larger clinkers may have to be removed from the top of the firepot. Corn clinkers can be especially difficult to break up.

c. The firepot floor plate must be fully closed when finished. **See Figure 28.1 on page 28**.

WARNING

Fire Risk.

- NEVER pull firepot cleaning rods or cleaning slide plates when appliance is operating. Hot pellets may fall into ashpan and may start a fire or have mis-starts due to lack of vacuum.

3. Ash Removal from Firebox

- **Frequency:** Weekly or more frequently depending on ash build-up.
- **By:** Homeowner

a. Allow the appliance to completely cool down. There must not be any hot ashes in the firebox during cleaning. Turn the thermostat on and then immediately off to start the exhaust blower on its cycle time. It will pull fly ash out the exhaust instead of into the room.

b. Frequent cleaning of the ash in the firebox will help slow down the build-up of ash in the exhaust blower and vent system.

c. Open door. Remove ash with an ash vacuum or whisk broom and small dust pan.

d. This ash is deposited in the same ash pan as the firepot debris. The ash pan should be emptied every time you clean the firebox. Remember to place the ash and debris into a metal or non-combustible container. **See Disposal of Ashes.**

WARNING

Disposal of Ashes

- Ashes should be placed in metal container with tight fitting lid.
- Ashes should be retained in closed container until all cinders have thoroughly cooled.

4. Cleaning Ash Pan

- **Frequency:** Weekly or every 5 bags of fuel
- **By:** Homeowner

Locate the ash pan underneath the firepot and using a slight pull up and out remove the ash pan. Empty into a non-combustible container and re-install ash pan. **See Disposal of Ashes.**

5. Disposal of Ashes

- **Frequency:** As needed
- **By:** Homeowner

Ashes should be placed in a metal container with a tight-fitting lid. The closed container of ashes should be placed on a non-combustible floor or on the ground, well away from all combustible materials, pending final disposal.

If the ashes are disposed of by burial in soil or otherwise locally dispersed, they should be retained in the closed container until all cinders have been thoroughly cooled.

WARNING

Heat exchanger cleaning rods may be warm to the touch. For safety purposes wear gloves.

Do not pull heat exchanger cleaning rods while appliance is operating.

Push cleaning rods IN when done, DO NOT leave cleaning rods OUT. Injury can occur.

6. Cleaning Heat Exchanger Chambers & Drop Tube

- **Frequency:** Weekly or every 1 ton of fuel
- **By:** Homeowner

The amount of ash buildup in the firepot will be a good guide to determine how often you should clean the heat exchangers.

a. Allow the appliance to completely cool down before pulling the cleaning rods. Turn the thermostat on and then immediately off to start the exhaust blower on its cycle time. It will pull fly ash out the exhaust instead of into the room.

b. To access the cleaning rods lift the hopper lid. Both black bent handle pull rods are located close to the face of the appliance to the left and right side.

c. To clean, pull the rods straight out until it stops, approximately 20 inches (508mm). Slide the rods OUT and IN a couple of times.

7. Cleaning Beneath Heat Exchanger

- **Frequency:** Monthly or after burning 1 ton of fuel
- **By:** Homeowner

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off

. b. A more thorough cleaning is needed to remove the excess ash that is left behind from the use of the cleaning rods for the heat exchanger tubes.

c. The ash will be resting on the back of the baffles. This will require removing the baffles. Please refer to **page 33** for instructions on removing the baffles.

8. Cleaning Exhaust Path

- **Frequency:** Yearly or more frequently depending on ash build-up.
- **By:** Homeowner

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off

b. Open the hinged access door on the left of the appliance.

c. Reach in and unlatch the trap door that is connected to the rear of exhaust blower.

d. Use a small vacuum hose attachment to clean area.

e. Re-latch and close trap door.

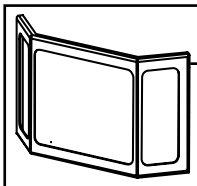
NOTE: There are heavy duty vacuum cleaners specifically designed for solid fuel appliance cleaning.

9. Cleaning the Glass

- **Frequency:** When clear view of the firepot becomes obscure.
- **By:** Homeowner

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

b. Use a damp paper towel or any nonabrasive glass cleaner. Wipe off with dry towel.



CAUTION

Handle glass assembly with care.

When cleaning glass:

- Avoid striking, scratching or slamming glass.
- Do NOT clean glass when it is hot.
- Do NOT use abrasive cleaners.
- Use a hard water deposit glass cleaner on white film.
- Refer to maintenance instructions.

10. Door Latch Inspection

- **Frequency:** Prior to heating season
- **By:** Homeowner

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off

b. To adjust, open the latch and pivot the holding rod out. Loosen the jam nut on the rod.

c. With a Phillips head screw driver, turn the rod clockwise to tighten. The latch handle should snap securely in place when adjusted properly.

d. After adjusting the latch, be sure to tighten the jam nut on the rod to hold the adjustment.

11. Door Gasket Inspection

- **Frequency:** Prior to heating season
- **By:** Homeowner

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off

b. To inspect the door rope (gasket), open the door and see that the door rope extends approximately 1/8 inch (3mm) to 3/16 inch (9.5mm) from the door rope channel.

c. It should show signs of compaction all the way around the door where the rope contacts the face of the appliance. Confirm there are no air leaks.

12. Cleaning the Hopper

- **Frequency:** Monthly or after burning 1 ton of fuel
- **By:** Homeowner

After burning approximately 1 ton of fuel or changing fuels you will need to clean the hopper to prevent sawdust build-up.

A combination of sawdust and pellets on the auger reduces the amount of fuel supply to the firepot. This can result in nuisance shutdowns and mis-starts.

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

b Empty the hopper of any remaining pellets.

c. Vacuum the hopper and feed tube.

13. Cleaning Exhaust Blower - Requires No Lubrication

- **Frequency:** Yearly or as needed
- **By:** Quality Service Technician/Homeowner
- **Task: Contact your local dealer.**

14. Cleaning Convection Blower - Requires No Lubrication

- **Frequency:** Yearly or as needed
- **By:** Qualified Service Technician
- **Task: Contact your local dealer.**

15. Soot and Fly Ash: Formation & Need for Removal in Exhaust Venting System.

- **Frequency:** Yearly or more frequently depending on ash build-up.
- **By:** Qualified Service Technician/Homeowner

Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

The products of combustion will contain small particles of fly ash. The fly ash will collect in the exhaust venting system and restrict the flow of the flue gases.

At start-up if there is incomplete combustion, or if there is a shutdown or incorrect operation of the appliance it will lead to some soot formation. This will collect in the exhaust venting system.

The venting system may need to be cleaned at least once a year or more often depending upon the quality of your fuel or if there is a lot of horizontal pipe sections. Ash will build up more quickly in the horizontal sections.

16. Cleaning the Top Vent Adapter

Frequency: Yearly or more frequently depending on ash build-up.

- **By:** Homeowner
  a. The appliance must be in complete shutdown and the exhaust blower should be off. Allow the appliance to completely cool down.
  b. Open the clean-out cover. **See Figure 32.1.**
  c. Sweep out any ash build-up.

NOTE: There are heavy duty vacuum cleaners specifically designed for solid fuel appliance cleaning.

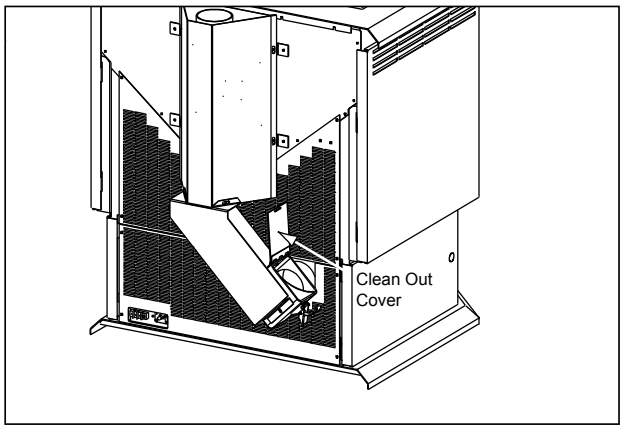


Figure 32.1

17. Preparing Firebox for Non-Burn Season

- **Frequency:** Yearly
- **By:** Homeowner
  a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.
  b. Remove all ash from the firebox and vacuum thoroughly.
  c. Paint all exposed steel, including cast-iron.
    - Use the Touch-Up paint supplied with the appliance; or,
    - Purchase paint from your local dealer.
    - Must use a high-temperature paint made specifically for heating appliances.

D. High Ash Fuel Content Maintenance

- **Frequency:** When the ash build-up exceeds more than half way up the firepot.
- **By:** Homeowner

Poor quality pellet fuel, or lack of maintenance, can create conditions that make the firepot fill quickly with ashes and clinkers.

This condition makes the appliance susceptible to overfilling the firepot with pellets which may result in smoking, sooting and possible hopper fires. **Figure 33.1** shows an example where the firepot overfills, pellets back up into the feed tube and ash has accumulated in the firebox.

An inefficient and non-economical method of burning of fuel caused by poor quality pellet fuel is shown in **Figure 33.2**.

The correct flame size when good quality, premium pellet fuel is burned is shown in **Figure 33.3**.

If the ash buildup exceeds the half way point in the firepot **IMMEDIATE ATTENTION AND CLEANING IS REQUIRED.**

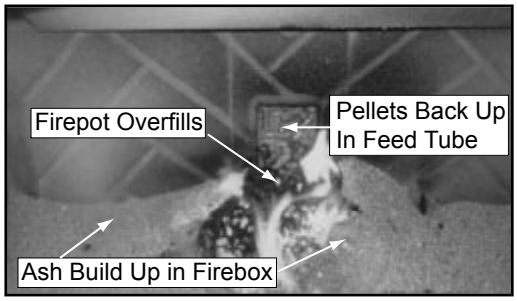


Figure 33.1

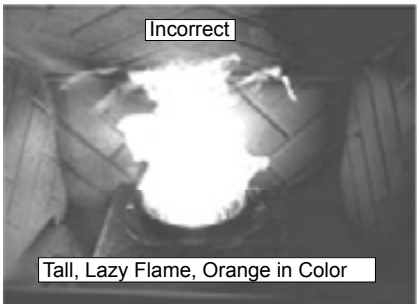


Figure 33.2

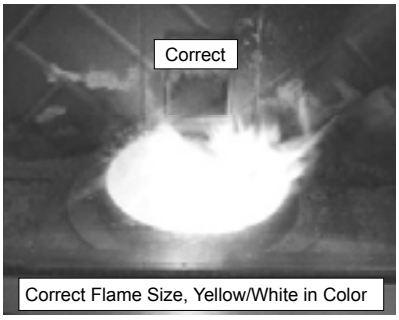


Figure 33.3

E. Blower Replacement

1. <u>Convection Blower Replacement</u>

a. Use proper shut down procedures to shut down the appliance and let it completely cool.

b. The convection blower is located at the bottom rear of the appliance. If an outside air kit is also installed, depending on your particular installation you may or may not have to remove the outside air flange. If you do, remove the 2 screws using a Phillips head screwdriver. You do not need to remove the flex pipe from the flange.

c. Remove the lower rear screen by removing the 4 screws securing the screen to the unit.

d. The motor is mounted on a removable bracket. Remove the 2 screws just above the motor and the whole assembly will tilt down and pull out.

e. Disconnect the wires from the blower. The wires coming from the wiring harness are white, red and tan and the wires coming from the blower are black, white and red. The white connects to white, the red to red and black to the tan color wire.

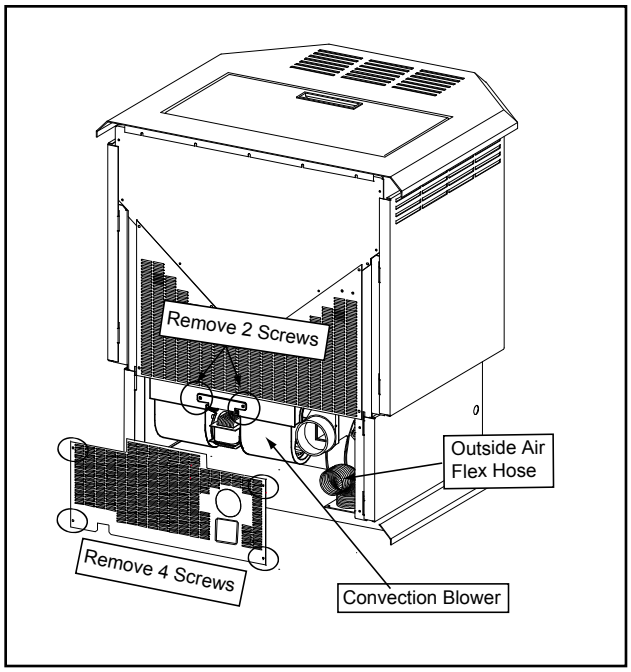


Figure 33.4

⚠ WARNING

Fire Risk.

- High ash fuels, or lack of maintenance, can cause the firepot to overfill. Follow proper shutdown procedure if ash buildup exceeds half way point in firepot.
- Failure to do so could result in smoking, sooting and possible hopper fires.

2. Exhaust Blower Replacement

Remove existing blower:

a. Use proper shut down procedures to shut down the appliance and let it completely cool and then unplug it.

b. Use an 11/32" wrench or nut driver to loosen and remove the (6) nuts holding motor mount plate to the blower housing on your stove.

c. Remove washer from beneath the terminal ring on the grounding wire.

d. Pull motor/mounting plate from blower housing.

e. Scrape off old gasketing material from blower housing.

Install new blower:

f. The blower and blower housing is shipped as a unit. It is necessary to separate them at this point if you are using the existing blower housing already installed on the appliance:

g. Follow steps 2 and 3 above. Discard or set aside the new blower housing.

h. Carefully remove gasketing from new housing and set onto the blower housing.

Re-install blower to blower housing:

i. Install blower on housing ensuring that wiring exits facing the 8 o'clock position. Place the washer and then the grounding wire on nearest mounting plate stud.

j. Use nuts removed in step b to secure blower to housing.

k. Re-connect wiring (use jumper wire if necessary). Re-connect power supply.

F. Baffle Removal

1. Use proper shut down procedures to shut down the appliance and let it completely cool down.

2. Open right side panel and then open the door.

3. The 2 baffles are located at the top inside of firebox.

4. Place your hand on the baffle and slide it up and the bottom edge will fall down and then you can lift the baffle out. Repeat for the other side.

G. Igniter Replacement

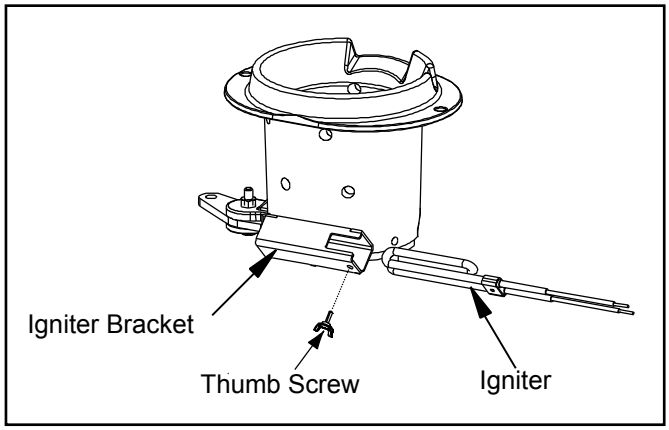


Figure 34.1

1. Use proper shut down procedures to shut down the appliance and let it completely cool down and then unplug it and remove the ash drawer.

2. Follow instructions to remove the ash pan found on **page 30**. Remove the access plate directly above it by removing the 2 screws just below the ash catcher.

3. The wire leads to the igniter are connected to the wire harness with 1/4 inch male / female spade connectors. These wires will pull forward approximately 4 to 5 inches (102mm to 127mm). Disconnect the spade connections and remove the igniter from the chamber. Loosen the thumb screw and slide igniter out.

4. Install new igniter into the chamber and tighten the thumb screw. Re-connect the wires to the 2 leads with the spade connectors.

5. Remove right side panel and pull wire leads back toward the rear of the appliance to take-up the 4 to 5 inches (102mm to 107mm) previously pulled out. This will keep the wires out of the way of the ash drawer. Double check that the igniter wires are clear of any movement, i.e. ash drawer, firepot cleaning rod, etc.

6. Re-install the ash drawer and side panel and re-connect the power.

H. Glass Replacement

WARNING

- Glass is 5mm thick high temperature heat-resistant ceramic glass.
- DO NOT REPLACE with any other material.
- Alternate material may shatter and cause injury.

- Remove door from appliance and place face down on a protected surface to avoid scratching the door.
- Remove all door rope.

1. Replacing Center Glass

NOTE: DO NOT LET Air Wash Spacers fall down from top frame when removing and replacing center glass.

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

b. Using a nut driver remove the (5) bottom nuts and remove the bottom glass frame. **Figure 35.2.**

c. Slightly bend up and out of the way the 2 center posts and slide the glass out the bottom.

d. Slide new glass in, reposition the 2 center posts and re-install bottom glass frame.

e. Re-rope the door.

2. Replacing Side Glass

NOTE: When removing the side glass with the door latch, you must remove the door latch first before removing the side frame. Use a powered Phillips head screw driver to remove the 4 screws.

a. Be sure the appliance is allowed to cool, has been unplugged and the exhaust blower is off.

b. Remove side glass frame.

c. Loosen the top and bottom frame and slightly bend up and out of the way.

d. Slide glass out the side and slide new glass in.

e. Re-install the side glass frame and tighten the top and bottom frames.

f. Re-install the door latch, if applicable, and re-rope the door.

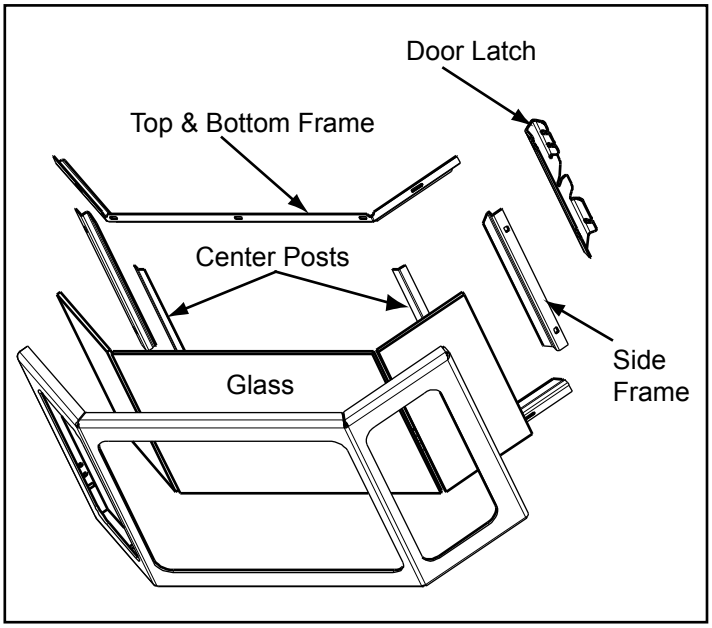


Figure 35.1

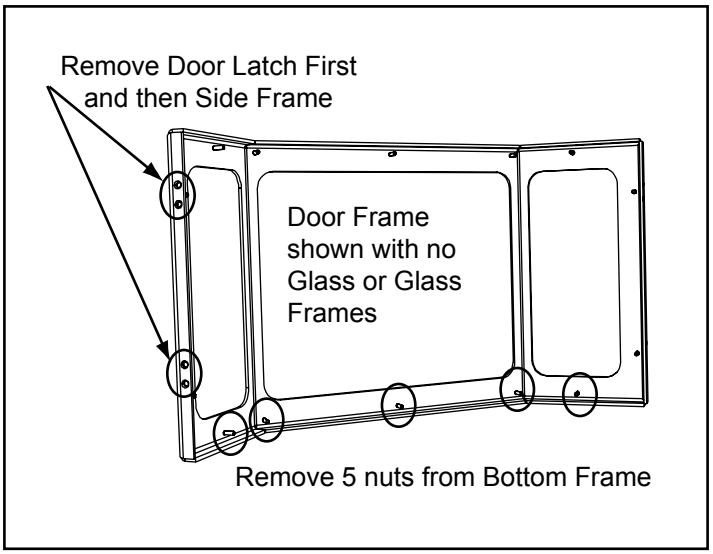
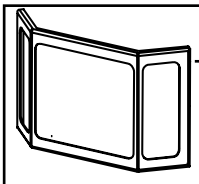

Remove Door Latch First and then Side Frame
Door Frame shown with no Glass or Glass Frames
Remove 5 nuts from Bottom Frame

Figure 35.2



WARNING

Handle glass with care.

- Inspect the gasket to ensure it is undamaged.
- Do NOT strike, slam or scratch glass.
- Do NOT operate appliance with glass assembly removed.
- Do NOT operate with glass cracked, broken or scratched.

11 Reference Materials

A. Component Function & Location

When describing the location of a component, it is always AS YOU FACE THE FRONT OF THE APPLIANCE.

1. Control Box

a. The control box is located under a small cover in the right rear corner of the inside of the hopper.

b. There is a light located inside of the control box. The internal light will turn green when the appliance has reached a temperature of 200°F (93°C) in the firepot and will turn red when it reaches 600°F (315°C).

c. There is also an internal blue light located in the upper left corner of the control box. When you plug in the appliance the blue light will automatically start blinking 1 blink every 10 seconds for the first 60 seconds and then will stop.

NOTE:

Do **NOT** open the control box. This will void the warranty. If you need to plug in or remove the control box you must first **unplug the appliance.**

2. Convection Blower

The convection blower is mounted at the bottom rear of the appliance. There are 2 impellers, one on each side of the motor. The convection blower pushes heated air through the heat exchange system into the room.

3. Combustion (Exhaust) Blower

The combustion blower is mounted on the lower left side on rear of appliance. The blower is designed to pull the exhaust from the appliance and push it out through the venting system.

4. Feed System

The feed system is located in the hopper under the feed motor cover box on the left side of the appliance and can be removed as an entire assembly. The assembly includes the feed motor, mounting bracket, bearing and feed spring (auger). The hollow feed spring (auger) pulls pellets up the feed tube from the hopper area and drops them down the feed chute into the firepot.

5. Firepot

The firepot is made of high quality ductile iron and has a cleaning pull-out rod. The floor of the firepot opens for cleaning when you pull out the rod. Be sure that the floor returns to a completely closed position or your appliance will not operate properly.

6. Fuse

The fuse is located on the front of the junction box on the right side of the appliance. The fuse will blow should a short occur and shut off power to the appliance.

7. Heat Exchangers

The heat exchangers transfer hot air from the exhaust system into convection air. Lift the stove top to access the heat exchangers. There are 2 clean out rods located under the heat exchangers.

8. Heat Output Switch

The heat output switch is located on the upper right side panel. The function of the heat ouput switch is to regulate the burn rates; low, medium, and high settings.

9. Hopper Switch

The hopper switch is located in the upper right hand corner of the hopper. This switch is designed to shut down the feed motor whenever the hopper lid is opened.

10. Igniter

The igniter is mounted on the base of the firepot. Combustion air travels over the red hot igniter creating super heated air that ignites the pellets.

11. Junction Box And Wiring Harness

The junction box is located on the right side of the appliance, behind the interior shield. The junction box and wiring harness are replaced as one component.

12. Power Supply

The power outlet is located on the back of the appliance, lower right corner. Check the wall receptacle for 120 volt, 60 Hz (standard current). Make sure the outlet is grounded and has the correct polarity. A good surge protector is recommended.

13. Red Call Light

The red call light is on the front of the junction box, next to the reset button. The function of the red call light is to indicate that the thermostat is calling for heat.

14. Reset Button

The reset button is located on the right side of the apppliance next to the red call light. The function of the button is to momentarily open the thermostat circuit, which restarts the system.

15. Thermocouple

The thermocouple is located on top of the firepot inside the thermocouple cover (ceramic protection tube). The thermocouple sends a millivolt signal to the control box indicating the preset temperatures of the green and red lights have been obtained.

16. Thermostat

The appliance is designed to run on a 12 volt AC thermostat. The heat anticipator should be set on the lowest setting available.

17. Snap Disc #1 (Convection Blower) 145°F

Snap disc #1 is located on the right side of the appliance on the top of the heat exchanger box. There are 2 purple wires connected to it. This snap disc turns the convection blower on and off as needed. Power is always present at snap disc #1.

18. Snap Disc #2 (Thermostat Override) 200°F

Snap disc #2 is also located on the right side of the appliance between snap disc #1 and convection blower. There are 2 yellow wires connected to it. This snap disc will turn off the feed system, which will turn off the appliance if an overfire condition should occur or if the convection blower should fail to operate.

19. Snap Disc #3 (Back Burn Protector) 250°F

Snap disc #3 is mounted on the back of the auger tube in the right side of the appliance just below the feed motor and has a red reset button. To access it remove the feed motor cover box from inside the hopper. If the fire tries to burn back into the feed system or push exhaust up the feed tube, this snap disc will shut the entire system off. This disc must be manually reset.

20. Vacuum Switch

The vacuum switch is located on the left side of the appliance behind the inner shield. This switch turns the feed system on when vacuum is present in the firebox. The vacuum switch is a safety device to shut off the feed motor if the exhaust or the heat exchanger system is dirty or plugged or if the firebox door is open.

21. Wiring Harness

See Figure 37.1 below.

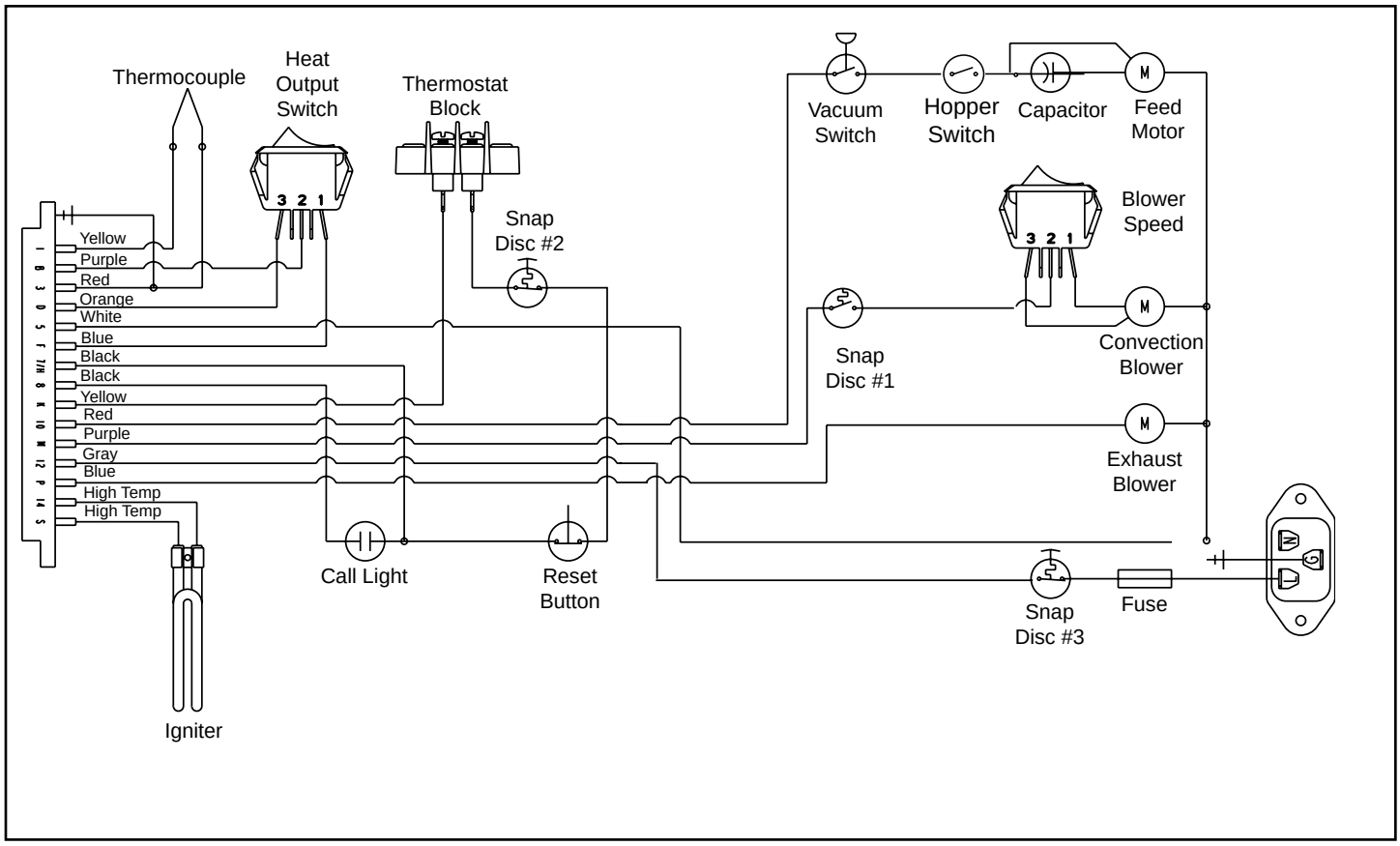


Figure 37.1

B. Component Locations

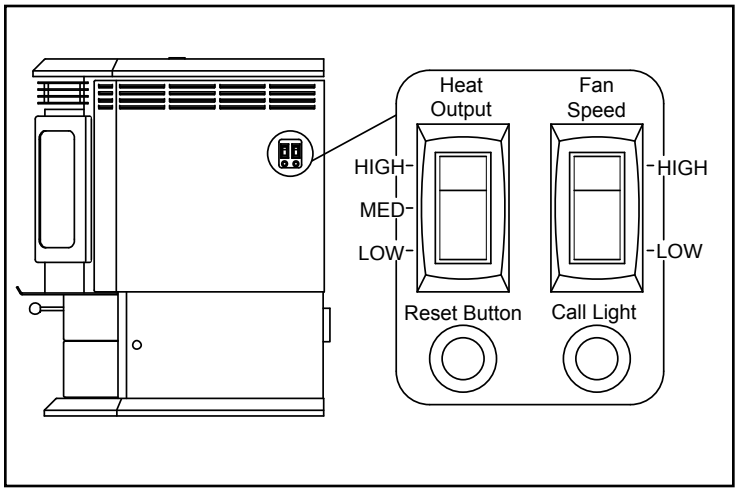


Figure 38.1

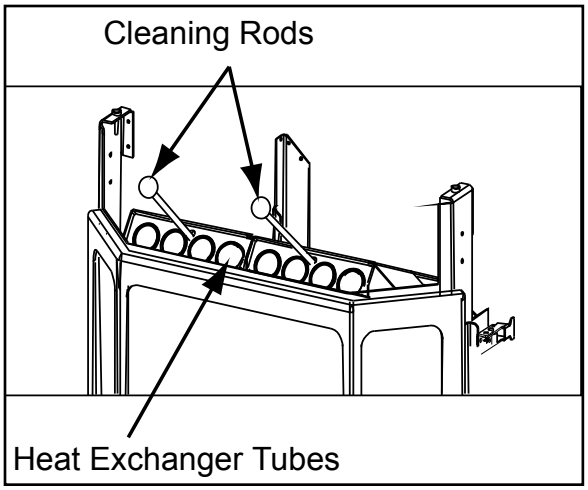


Figure 38.3

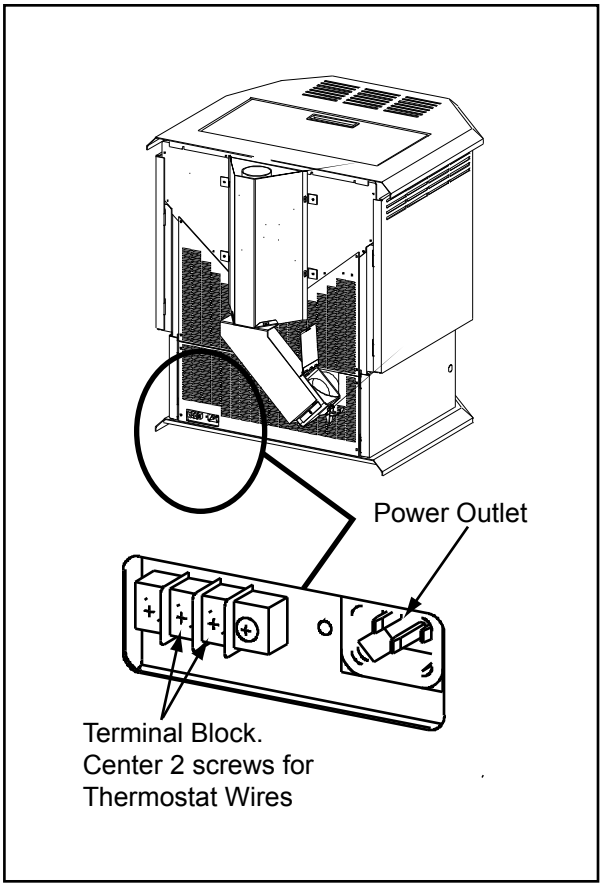


Figure 38.2

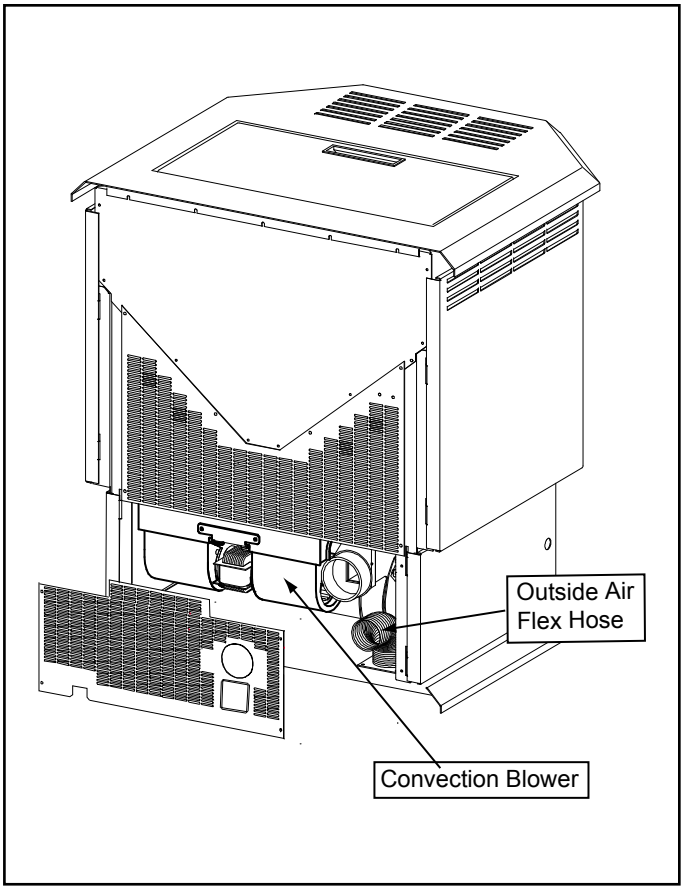


Figure 38.4

C. Exploded Views

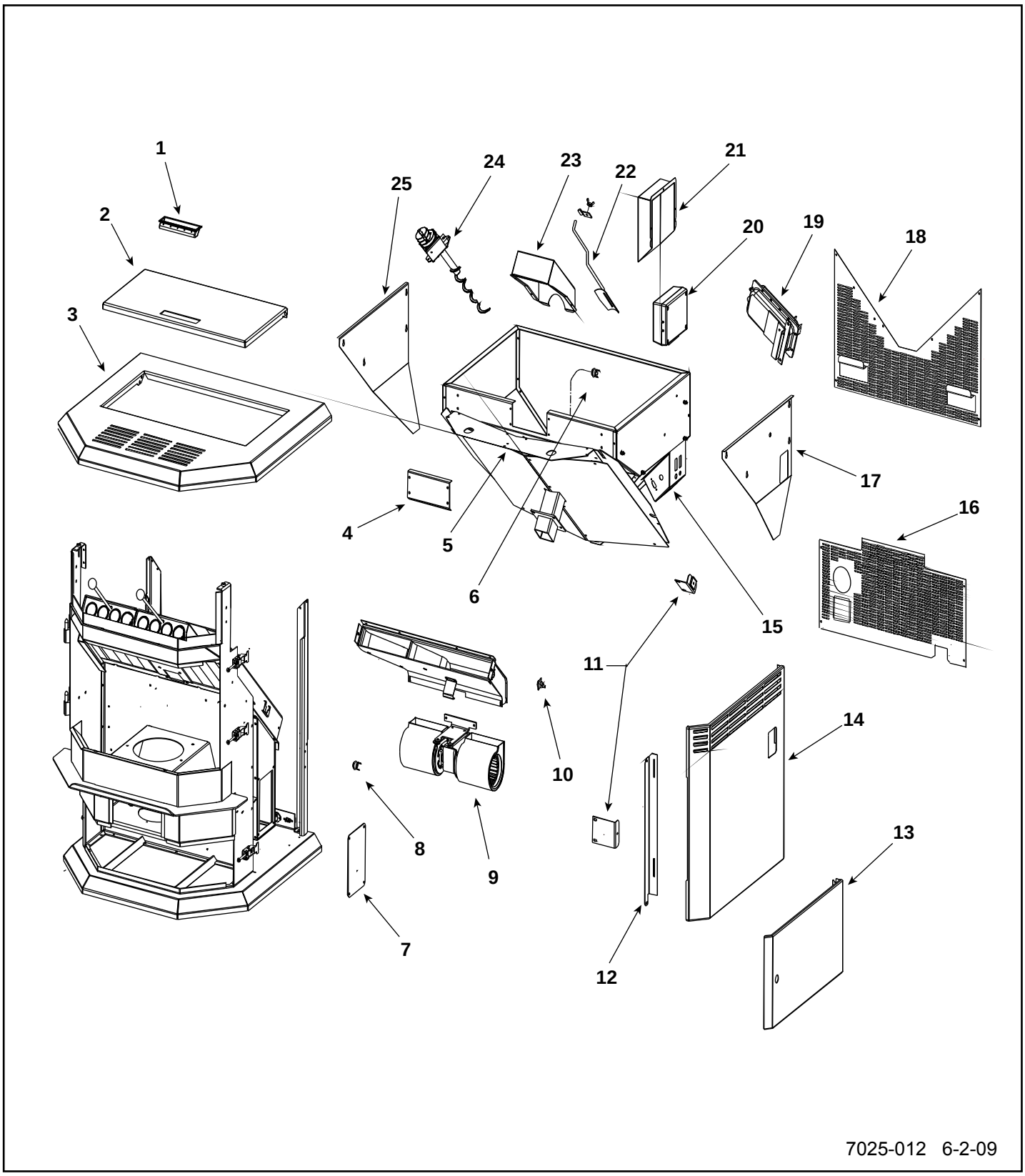


Figure 39.1

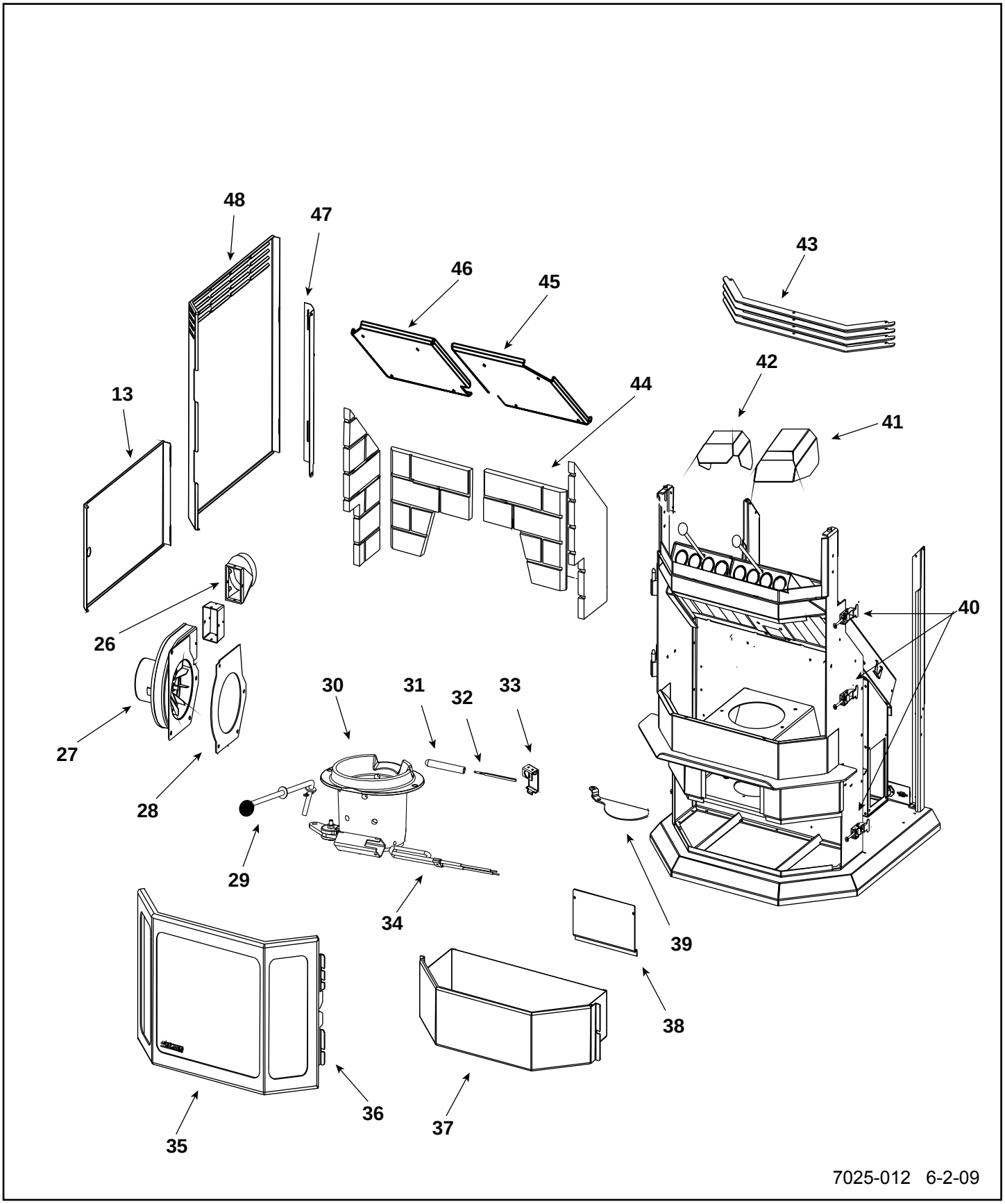

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Figure 40.1

B. Service Parts & Accessories

IMPORTANT: THIS IS DATED INFORMATION

When requesting service or replacement parts for your appliance please provide model number and serial number. All parts listed may be orderd from an authorized dealer.

HOW TO ORDER

To order the entire assembly, order the top line part number only. To order an individual part from an assembly, order the part(s) listed in the indented portion.

Item	Description	Comments	Part Number	Stocked at Depot
1	Handle, Hopper Lid		200-0110	
2	Lid, Hopper		410-4901	
	Bumper, Rubber	Qty: 12	SRV224-0340/12	
	Bushing, Hopper Lid	Qty: 2	812-1010	
3	Top	Top Only	SRV410-4980	
		Top Assembly with Hopper Lid	812-3940	
4	Panel, Feed Motor Access		410-6220	
5	Extension, Heat Shield Top		410-5322	
6	Snap Disc, Manual Reset		SRV230-1290	Y
7	Exhaust Plenum Cleanout Plate		410-4871	
8	Snap Disc, Convection Blower # 1		SRV230-0060	Y
9	Blower Convection		812-3370	Y
10	Snap Disc, 200 Open/40 D, # 2		SRV230-0900	Y
11	Latch, Magnetic	For Side Curtain Air Deflector	812-3821	
	Latch, Magnet		229-0631	
12	Mount, Side Curtain, Right		410-5261	
13	Curtain, Pedestal Side	Interchangeable	410-5391	
14	Curtain, Side Right		812-3800	
15	Wire Harness/Junction Box		SRV7000-154	Y
	Block, Thermostat Term Dv		230-0690	
	Capacitor, Rep Jumper		230-2150	Y
	Igniter Extension		7000-218	
16	Panel, Rear Access, Bottom		410-5413	
17	Deflector, Air, Right Curtain		410-5105	
18	Panel, Rear Access, Top		410-4352	
19	Vacuum Switch		SRV7000-447	Y
20	Control Board 3 Speed		SRV7000-205	Y
21	Cover, Control Box		410-6321	
22	Feed Adjustment Plate		812-4170	
23	Cover, Feed Motor		410-5311	
24	Feed Motor Assembly		812-3690	Y
	Bearing, Feed System, Nylon		410-0552	Y
	Collar, Set, 7/8		229-0520	
	Feed Motor		812-4421	Y
	Feed Spring Assembly		SRV7027-024	Y
	Gasket, Feed Motor		240-0731	Y
	Mount, Feed Motor		410-7172	

HOW TO ORDER *To order the entire assembly, order the top line part number only. To order an individual part from an assembly, order the part(s) listed in the indented portion.*

Item	Description	Comments	Part Number	Stocked at Depot
	Snap Disc, Manual Reset		SRV230-1290	Y
25	Deflector, Air, Left Curtain		410-4992	
26	Casting, Exhaust Transition		180-0190	
27	Blower, Combustion/Exhaust		812-3381	Y
28	Gasket, Exhaust Combustion Blower	Between Housing and Stove	240-0812	Y
		Between Motor & Housing	812-4710	Y
29	Rod/Linkage, Ez Clean		812-3850	
	Bolt, Firepot, 1-1/4” Long		225-0120	
	Clip, Hitch Pin, #25		229-0360	
	Knob, Ash Dump Control Rod		200-0831	
	Spring, Firepot		200-2050	
30	Firepot Assembly		812-3351	Y
	Bushing, Firepot		410-8320	
	Floor, Firepot		414-0290	
	Gasket, Firepot		510-0530	Y
	Nut, Lock 1/4-20		226-0090	
31	Thermocouple Cover	Qty: 1	812-1322	Y
		Qty: 10	812-4920	Y
32	Thermocouple		812-0210	Y
33	Thermocouple Bracket W/Set Screw		812-3171	Y
34	Heating Element 6”, Loop Igniter	Qty: 1	812-3811	Y
		Qty: 10	812-4560	Y
	Wing Thumb Screw 8-32X1/2	Qty: 24	7000-223/24	Y
35	Door Assembly	Black	DR-CB12-MBK-B	
		Gold	DR-CB12-GD-B	
		Nickel	DR-CB12-NL-B	
	Door Rope, 7/8”, 8 Ft	Qty: 8 Ft, Field Cut to Size	842-2350	Y
	Gasket, Glass	Qty: 10 Ft, Field Cut to Size	833-0660	
	Glass Assembly, Center	13-7/8” W x 11” H	510-5400	Y
	Glass Assembly, Side, 1 Pc	5-1/8” W x 11” H, (Interchangeable)	510-5410	Y
	Glass Retainer Assembly		510-5460	
	Hinge, Female		450-2910	
36	Bracket, Door Latch		410-4912	
37	Ashpan		812-4050	
	Gasket, 7/16”, 10 Ft	Qty: 10 Ft, Field Cut to Size	844-6730	Y
38	Panel, Front Access		410-5161	
39	Exhaust Plenum Trap Door		812-4100	
40	Latch, Draw		229-0640	Y
41	Director, Air, Large		410-8250	
42	Director, Air, Small		410-8260	

HOW TO ORDER *To order the entire assembly, order the top line part number only. To order an individual part from an assembly, order the part(s) listed in the indented portion.*

Item	Description	Comments	Part Number	Stocked at Depot
43	Grille, Louver	Black	LVGRL-CB12-BK-B	
		Gold	LVGRL-CB12-GD-B	
		Nickel	LVGRL-CB12-NL-B	
	Grille, Bar, Bottom		410-8330	
44	Brick Set	Qty: 4	811-0601	
	Brick Retainer Clips Assembly		SRV510-1020	
45	Baffle Assembly Right		510-5360	
46	Baffle Assembly Left		510-5350	
47	Curtain Mount, Side Left		410-5251	
48	Curtain, Side Left		812-3840	
	Bracket, Snap Disc Mounting		410-2521	
	Call Light, Fluorescent	New Style Junction Box	SRV7000-122	
	Ceramic Nuts, (Igniter)	Qty: 1	812-0730	Y
		Qty: 12	812-0730/12	Y
	Component Pack (Includes Firepot Cleanout Tool, Touch-Up Paint, Power Cord, Wire Harness For Thermostat, Owners Manual, Warranty Card, Consumers View Card & “How To” Dvd)		812-3630	
	Cleanout Tool		414-1140	Y
	Dvd Original Energy Stove		7000-440	
	Harness, Thermostat Wire		230-0810	
	Paint Touch-Up		7000-304	
	Power Cord		812-1180	Y
	Fuse, 7 Amp, Junction Box	Qty: 1	812-0380	Y
		Qty: 10	812-0380/10	Y
	Fuse, 8 Amp, Control Box	Qty: 1	812-3780	Y
		Qty: 10	812-3780/10	Y
	Hinge Plate		812-4030	
	Hinge, Door, Male		450-2810	
	Hose, Vacuum, 5/32 Id	Qty: 3 Ft, Field Cut to Size	SRV240-0450	Y
	Igniter Wire (5Ft) & (4) Ceramic Nuts		812-4520	Y
	Switch, 3-Position	Heat Output Rocker Switch	812-3500	Y
	Switch, Rocker (Fan Speed)		812-3910	
	Thermocouple Grounding Kit		812-4980	
ACCESSORIES				
	Collar, Offset, Top Vent		812-3570	

HOW TO ORDER *To order the entire assembly, order the top line part number only. To order an individual part from an assembly, order the part(s) listed in the indented portion.*

Item	Description	Comments	Part Number	Stocked at Depot
	Damper, 3 Inch	Tall Vertical Installs Only	PEL-DAMP3	
	Damper, 4 Inch	Tall Vertical Installs Only	PEL-DAMP4	
	Door Assembly	Black	DR-CB12-MBK-B	
		Gold	DR-CB12-GD-B	
		Nickel	DR-CB12-NL-B	
	Grille, Louver	Black	LVGRL-CB12-BK-B	
		Gold	LVGRL-CB12-GD-B	
		Nickel	LVGRL-CB12-NL-B	
	Log Set	Qty: 3	811-0592	
	Log, Front		7027-219	
	Log, Top Left		7027-221	
	Log, Top Right		7027-220	
	Outside Air Kit, Floor		811-0570	
	Outside Air Kit, Rear		811-0872	
	Channel, Air Intake		413-7040	
	Cover, Outside Air Kit, Floor		411-1071	
	Hose, Alum Flex, 2 Inch X 3 Ft	Qty: 3 Ft	200-0860	
	Outside Air Cap Assembly		7001-044	
	Outside Air Collar Assembly		7001-045	
	Trim Plate, Outside Air Kit		412-7100	
	Smart-Batt II		841-0970	
	Smart-Stat II		841-0960	
	Thermostat, Mechanical		812-3760	
	Thermostat, Programmable		811-0520	
	Top Vent Adapter		TPVNT-1	
	Vent Adapter, 90, Cleanout		811-0610	
	Vent Adapter, Rear		811-0620	
		FASTENERS		
	Avk Rivnut Repair Kit	1/4-20 & 3/8-16 Rivnut Tool	RIVNUT-REPAIR	Y
	Bolt, Shoulder, 5/16X 1/4-20	Qty: 20	223-0170/20	Y
	Nut, Keps Lock, 8-32	Qty: 40	226-0060/40	Y
	Nut, Ser Flange Small 1/4-20	Qty: 24	226-0130/24	Y
	Nut, Wing, 8-32	Qty: 24	226-0160/24	Y
	Screw, Pan Head Philips 10-32 X 3/8	Qty: 40	21799A/40	Y
	Screw, Pan Head Philips 8-32 X 3/4	Qty: 24	229-1100/24	Y
	Screw, Pan Head Philips 8-32 X 3/8	Qty: 40	225-0500/40	Y

HOW TO ORDER *To order the entire assembly, order the top line part number only. To order an individual part from an assembly, order the part(s) listed in the indented portion.*

Item	Description	Comments	Part Number	Stocked at Depot
	Screw, Sheet Metal #8 X 1/2 S-Grip	Qty: 40	12460/40	Y
	Washer, 1/4 Sae	Qty: 24	28758/24	Y
	Washer, Sae, 3/8 (3 Ea)	Qty: 3	832-0990	

E. Warranty Policy

Hearth & Home Technologies Inc.
LIMITED LIFETIME WARRANTY

Hearth & Home Technologies Inc., on behalf of its hearth brands (”HHT”), extends the following warranty for HHT gas, wood, pellet, coal and electric hearth appliances that are purchased from an HHT authorized dealer.

WARRANTY COVERAGE:

HHT warrants to the original owner of the HHT appliance at the site of installation, and to any transferee taking ownership of the appliance at the site of installation within two years following the date of original purchase, that the HHT appliance will be free from defects in materials and workmanship at the time of manufacture. After installation, if covered components manufactured by HHT are found to be defective in materials or workmanship during the applicable warranty period, HHT will, at its option, repair or replace the covered components. HHT, at its own discretion, may fully discharge all of its obligations under such warranties by replacing the product itself or refunding the verified purchase price of the product itself. The maximum amount recoverable under this warranty is limited to the purchase price of the product. This warranty is subject to conditions, exclusions and limitations as described below.

WARRANTY PERIOD:

Warranty coverage begins on the date of installation. In the case of new home construction, warranty coverage begins on the date of first occupancy of the dwelling or six months after the sale of the product by an independent, authorized HHT dealer/ distributor, whichever occurs earlier. The warranty shall commence no later than 24 months following the date of product shipment from HHT, regardless of the installation or occupancy date. The warranty period for parts and labor for covered components is produced in the following table.

The term “Limited Lifetime” in the table below is defined as: 20 years from the beginning date of warranty coverage for gas appliances, and 10 years from the beginning date of warranty coverage for wood, pellet, and coal appliances. These time periods reflect the minimum expected useful lives of the designated components under normal operating conditions.

Warranty Period		HHT Manufactured Appliances and Venting							Components Covered
Parts	Labor	Gas	Wood	Pellet	EPA Wood	Coal	Electric	Venting	
1 Year		X	X	X	X	X	X	X	All parts and material except as covered by Conditions, Exclusions, and Limitations listed
2 years				X	X	X			Igniters, electronic components, and glass
		X	X	X	X	X			Factory-installed blowers
			X						Molded refractory panels
3 years				X					Firepots and burnpots
5 years	1 year			X	X				Castings and baffles
7 years	3 years		X	X	X				Manifold tubes, HHT chimney and termination
10 years	1 year	X							Burners, logs and refractory
Limited Lifetime	3 years	X	X	X	X	X			Firebox and heat exchanger
90 Days		X	X	X	X	X	X	X	All replacement parts beyond warranty period

WARRANTY CONDITIONS:

- This warranty only covers HHT appliances that are purchased through an HHT authorized dealer or distributor. A list of HHT authorized dealers is available on the HHT branded websites.
- This warranty is only valid while the HHT appliance remains at the site of original installation.
- Contact your installing dealer for warranty service. If the installing dealer is unable to provide necessary parts, contact the nearest HHT authorized dealer or supplier. Additional service fees may apply if you are seeking warranty service from a dealer other than the dealer from whom you originally purchased the product.
- Check with your dealer in advance for any costs to you when arranging a warranty call. Travel and shipping charges for parts are not covered by this warranty.

WARRANTY EXCLUSIONS:

This warranty does not cover the following:

- Changes in surface finishes as a result of normal use. As a heating appliance, some changes in color of interior and exterior surface finishes may occur. This is not a flaw and is not covered under warranty.
- Damage to printed, plated, or enameled surfaces caused by fingerprints, accidents, misuse, scratches, melted items, or other external sources and residues left on the plated surfaces from the use of abrasive cleaners or polishes.
- Repair or replacement of parts that are subject to normal wear and tear during the warranty period. These parts include: paint, wood, pellet and coal gaskets; firebricks; grates; flame guides; and the discoloration of glass.
- Minor expansion, contraction, or movement of certain parts causing noise. These conditions are normal and complaints related to this noise are not covered by this warranty.
- Damages resulting from: (1) failure to install, operate, or maintain the appliance in accordance with the installation instructions, operating instructions, and listing agent identification label furnished with the appliance; (2) failure to install the appliance in accordance with local building codes; (3) shipping or improper handling; (4) improper operation, abuse, misuse, continued operation with damaged, corroded or failed components, accident, or improperly/incorrectly performed repairs; (5) environmental conditions, inadequate ventilation, negative pressure, or drafting caused by tightly sealed constructions, insufficient make-up air supply, or handling devices such as exhaust fans or forced air furnaces or other such causes; (6) use of fuels other than those specified in the operating instructions; (7) installation or use of components not supplied with the appliance or any other components not expressly authorized and approved by HHT; (8) modification of the appliance not expressly authorized and approved by HHT in writing; and/or (9) interruptions or fluctuations of electrical power supply to the appliance.
- Non-HHT venting components, hearth components or other accessories used in conjunction with the appliance.
- Any part of a pre-existing fireplace system in which an insert or a decorative gas appliance is installed.
- HHT's obligation under this warranty does not extend to the appliance's capability to heat the desired space. Information is provided to assist the consumer and the dealer in selecting the proper appliance for the application. Consideration must be given to appliance location and configuration, environmental conditions, insulation and air tightness of the structure.

This warranty is void if:

- The appliance has been over-fired or operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals. Over-firing can be identified by, but not limited to, warped plates or tubes, rust colored cast iron, bubbling, cracking and discoloration of steel or enamel finishes.
- The appliance is subjected to prolonged periods of dampness or condensation.
- There is any damage to the appliance or other components due to water or weather damage which is the result of, but not limited to, improper chimney or venting installation.

LIMITATIONS OF LIABILITY:

- The owner's exclusive remedy and HHT's sole obligation under this warranty, under any other warranty, express or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above. In no event will HHT be liable for any incidental or consequential damages caused by defects in the appliance. Some states do not allow exclusions or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific rights; you may also have other rights, which vary from state to state. EXCEPT TO THE EXTENT PROVIDED BY LAW, HHT MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY SPECIFIED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO DURATION OF THE EXPRESSED WARRANTY SPECIFIED ABOVE.

4021-645B 04-02-09

QUADRA-FIRE®

***CONTACT INFORMATION*:**

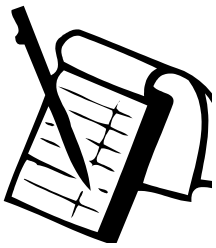
Hearth & Home Technologies
1445 North Highway
Colville, WA 99114
Division of HNI INDUSTRIES
www.quadrafire.com

Please contact your Quadra-Fire dealer with any questions or concerns.
For the number of your nearest Quadra-Fire dealer
visit our website at *www.quadrafire.com*

NOTICE

DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand and follow these instructions for safe installation and operation.
- Leave this manual with party responsible for use and operation.



We recommend that you record the following pertinent information for your CB1200 PELLET STOVE

Date purchased/installed: _____

Serial Number: _____ Location on appliance: _____

Dealership purchased from: _____ Dealer phone: _____

Notes: _____

_____

_____

This product may be covered by one or more of the following patents: (United States) 4593510, 4686807, 4766876, 4793322, 4811534, 5000162, 5016609, 5076254, 5113843, 5191877, 5218953, 5263471, 5328356, 5341794, 5347983, 5429495, 5452708, 5542407, 5601073, 5613487, 5647340, 5688568, 5762062, 5775408, 5890485, 5931661, 5941237, 5947112, 5996575, 6006743, 6019099, 6048195, 6053165, 6145502, 6170481, 6237588, 6296474, 6374822, 6413079, 6439226, 6484712, 6543698, 6550687, 6601579, 6672860, 6688302B2, 6715724B2, 6729551, 6736133, 6748940, 6748942, 6769426, 6774802, 6796302, 6840261, 6848441, 6863064, 6866205, 6869278, 6875012, 6880275, 6908039, 6919884, D320652, D445174, D462436; (Canada) 1297749, 2195264, 2225408, 2313972; (Australia) 780250, 780403, 1418504 or other U.S. and foreign patents pending.

HEARTH & HOME technologies